

THE CULTIVATOR.

THIRD

To Improve the Soil and the Mind.

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Editorial Correspondence—No. II.

BALTIMORE, May, 1858.

I have been spending some hours at "Riversdale," the seat of CHARLES B. CALVERT, Esq., widely known as one of the most prominent Country Gentlemen of this State, not only on account of the extensive farm he cultivates, but also for his long and active services in the cause of agricultural improvement. The very full and complete description of his grounds and estate contributed to our last volume, (see CO. GENT. for Sept. 3, 1857, p. 161,) by a gentleman most thoroughly qualified to appreciate and describe them, has anticipated much that I would like to say; and in what I have to add, great allowance should be made for such a thorough previous occupation of the field as well as for the disadvantages of letter writing amidst the hurry and bustle of travel.

Maryland State Ag. College.

Our first business was to see the farm of about 400 acres, which had recently been purchased by the trustees of the Maryland State Agricultural College. It occupies a very accessible position, being directly upon the railroad, and within a few minutes ride of Washington; including the old tavern which travellers, before the days of railroads, may remember as the first stage station after leaving that city, and which will now prove a very convenient and comfortable building for the various purposes required, until the erection of others, and intended to serve subsequently, as a hotel or boarding house for visitors, &c. The soil includes some that is enriched by a very considerable stream on which the farm borders, and varies in stiffness and fertility from the bottom land, up to the more elevated

fields where the college structures are to be located, and where, united with a commanding prospect, there will be some obstacles to overcome, of a more practical nature—the kind of farming here required being, however, precisely such as most pupils might perhaps best employ themselves in studying, preparatory to their own practice of it on a larger scale. Back of the site of the main buildings a large orchard has been already planted out, on newly broken land, in order to get the trees started with as little delay as possible. They include a wide assortment of the different fruits, about one-half of them I believe dwarfs, and all promising well for a life of future usefulness.

On the lower ground toward the road, bricks were making for the college building, as fast as the wet weather would permit. The plan decided upon calls for a structure when completed some 300 feet in length, of which a part, calculated to accommodate about an hundred students, will it is hoped be ready for occupation before another season. The funds of the Institution are said to be in a most healthy condition, and when the report of the trustees soon to be published, appears, readers in this and other States will be interested in having a synopsis of it given through these columns.* It might be invidious to mention meantime the several instances of munificence which casually came to my knowledge—but that of a Louisiana gentleman, Dr. MERCER, a native and former resident of Maryland, should not be left unnoticed. The law of incorporation required a previous subscription of \$50,000 from private persons, and when it was made known to Dr. M. that the amount subscribed had reached \$47,500 he generously came forward with the \$2,500 necessary for the completion of the fund; and, subsequently, having been chosen an honorary trustee of the college, he acknowledged the compliment by one in return, as demonstrative as it could well be made of his confidence in the plans and management of his associates—namely, a check for

* We are indebted to Mr. CALVERT, and a friend in Baltimore, for copies of the Report here referred to, from which we learn that the "Maryland Ag. College," was incorporated by the state on condition that the commissioners appointed by the act, should raise by subscription the sum of \$50,000, to be expended in the purchase of a farm, the erection of buildings, and placing the institution in a condition for the reception of students. This having been done by private munificence, the state now comes in with its aid, and pledges itself to pay \$8,000 per year for the annual support of the institution. Thus it will be seen that the Maryland Ag. College is substantially endowed, and promises, with as little delay as possible, to become one of the active institutions of the land. Its Board of Trustees consists of 25—one from each county in the state—of which Hon. C. B. CALVERT is President.

another twenty-five hundred dollar present. His name will thus be long associated with those of other public spirited and wealthy Marylanders, who have so heartily united to encourage and support this valuable enterprise.

Mr. CALVERT, with a view of accomplishing results of some practical value at as early a day as may be, has laid off three ranges of experimental lots, each 19 in number, on one of which series corn is planted, on the second oats, and on the third potatoes. Manures of 19 kinds, including guanos of various sorts, the superphosphates of different manufactures, poudrette, &c., &c., are to be applied to the 19 lots devoted to each crop—each lot being precisely half an acre in extent, and the amount of manure which each receives being regulated by their relative cost as follows:—Peruvian guano is applied to one at the rate of three cwt. or \$7.65 per acre, and as much of each of the other manures as the same sum will purchase, shows the quantity of it to be used. The experiment is to be continued five years, under a rotation of crops from one set of lots to another, and the returns accurately measured and noted down, as between the respective fertilizers, in the expectation of thus ascertaining more nearly than could otherwise be done, their comparative effects, not for one season only, but for a succession of years.

Surface Application of Manures.

While on the subject of manures, it may be mentioned that Mr. Calvert is a strong advocate of the application of stable manures *upon the surface*, instead of plowing them in. He first became convinced of the superiority of this system, at least for his own lands, by some experiments conducted many years ago with a view of comparing the two ways—and he has ever since adhered to the conclusions then reached. The shading or protection of the land during the time it is covered until planted in the spring, is apparently the source of the benefit, although in what way this benefit is produced, remains a mystery. A suggestion has been hazarded by a neighbor of Mr. C.'s—a gentleman of considerable scientific attainments—that the improvement may perhaps be caused by the increase of animal life that takes place under such protection, which organisms in a state of decay operate in fertilizing the soil that forms their burial place. It is well known how thick the "bugs" are under any chance shelter, such, for instance, as that afforded by a stone or block of wood, and if they flourish to as great extent beneath the clods of dung, it is argued that they may add materially to its manurial power. If the observation of any reader should go toward a corroboration of this idea, others would be glad to know it, and it is much to be hoped that the resultant discussion would throw some light on a subject of so great importance.

Importance of the Roller.

An incident occurred in seeding to grass a portion of the lawn in front of Mr. Calvert's mansion, from which he was disposed to derive a lesson of interest to every farmer. On some parts of it which had been trampled and driven upon during grading, the seed had taken much better than elsewhere, and he expressed no doubt that a similar compression of the soil after sowing, *by a free use of the roller*, would be very promotive of success. This will probably agree with the views and experience of others, but is worthy of mention as a re-

minder to most of our farmers of the neglect in which they too generally suffer this useful implement to remain. A roller is as much to be expected in the establishment of a thorough cultivator, as a harrow, and its agency in breaking up and bringing into contact the particles of soil, and in securing the germination and safety of the seed by the protection and sustenance thus afforded, can scarcely be too highly esteemed.

The Hay Crop.

Mr. CALVERT's main crop has been hay, of which he will cut some 300 acres out of the 2,000 that remain in Riversdale since the disposal of a part of it to the Agricultural College. He expects this large surface will average from one to one and a half tons per acre—favored places yielding two—though the luxuriance brought about by the wetness of the season was showing itself to the injury of the crop, both grass and wheat being already somewhat beaten down. For the last few years the price hay has commanded, and the diminished personal attention its production requires, together with a constant call upon his time in other directions, had led Mr. C. to enlarge his sales of this, and give up a portion of the stock to which most of the farm was formerly devoted; and, although still continuing to dispose of some milk and feed a few steers, the scale on which these operations have lately been conducted is much smaller than before, and under the present state of the markets, he had concluded that they might be again profitably extended.

The Milk Business.

Mr. Calvert's large, convenient, and most admirably ventilated cow house, heretofore described in the *Co. GENT.*, (vol. 4, p. 108) is octagonal in form, 100 feet in diameter, and will accommodate 104 cows upon one floor. When built, he was in the habit of constantly milking *about sixty fresh cows*—the word *fresh* referring to his system of continually adding cows in full milk, and parting with those that fell below the standard of a fair profit. The cost of feed and attendance having been very nearly reckoned, the minimum amount of milk equivalent to a remuneration for these items of expense was easily ascertained—the manure produced being omitted in the estimate to cover any errors of calculation. Care was taken in selecting cows which had lately calved, to get those in best condition as well as the best milkers possible, and by the time that the quantity of milk yielded became smaller than would actually return a profit, an abundance of food had put the cow in fair condition for the butcher, and she would bring, when sold for beef, within ten or fifteen dollars of her cost, with a calf six or eight months before—a result considered far more satisfactory than to continue to feed her through the remainder of the year, in which she could give a very small money return or none at all. The price which the milk obtains is twenty cents a gallon. It is not difficult to get fresh cows of fair quality all the year round at the Washington or Baltimore markets, although it might pay a very extensive milk producer to keep a man in the country for the purpose of picking out a still better class of animals, or to make an arrangement with his neighbors by which there might be had from them a succession of fresh cows, bred with a view particularly to this object under his own direction.

Alderney Cattle—Improvement of Stock.

Of the superiority of butter made from Alderney milk, Mr. C. was thoroughly convinced, and it was ow-

ing to his having casually ascertained that a certain specimen of premium butter derived its excellence from this source, that he first purchased several head of the breed. He has also been a considerable breeder of Short-Horns and Ayrshires, and still retains some animals of each. Not having the time and inclination, however, to devote himself mainly or exclusively to improved stock, he has preferred a milk farm to the business of a breeder. Such stock as he could procure in accordance with the system above described, probably grades more or less remote from earlier importations, he has found to prove equally productive of milk and profitable for his purposes, with that boasting purer blood and higher pretensions. That he has exerted himself to call the attention of his neighbors to the importance of some improvements upon their former herds, it is proper to mention a very public spirited offer he kept open to their acceptance for several years. Instead of selling his young Durham bulls, he advertised that he would present one to any applicant who would undertake, on a penalty of a forfeit of \$10, to exhibit him at the Show of the County Ag. Society for the three following years, and moreover offered a silver cup to the one which should prove on these occasions the best, and to have been best cared for. Nineteen, I think, were accepted the first year upon these liberal terms, and more during several succeeding seasons; the cups were duly awarded, and the results are now plainly to be seen in the change wrought by the use of these improved males in the whole farm stock of the surrounding region.

Tobacco Growing and Turkeys.

Prince George is still a large tobacco growing county. The ordinary practice is to alternate this crop, or corn with those who prefer it, with oats or wheat if the land is rich enough. The culture of tobacco, Mr. Calvert has, however, given up. There is one use to which it puts another kind of farm stock—namely the poultry, that renders this on tobacco farms a very important subject. *Turkeys* are the great protectors of the young plants, ranging the fields and devouring the worms, and growers of the crop are consequently interested in any assistance they can receive as to the breeding and management of this fowl. Another source of protection to the crops from insect depredations, Mr. C. thinks most highly of, and affords to it in turn all the protection in his power. This is the birds—he will allow no gun to be shot upon the estate, and does not even molest that much hated race, the crows, preferring to make allowances in planting for the extra corn they will eat, rather than have them give up the pursuit of their animal food through the fields. Like other animals, they cannot well live on meat alone, and he does not begrudge them a few kernels of that grain which is even better appreciated by man and beast and bird at the south than at the north.

Soiling and Root Culture.

In the care of stock Mr. C. is approaching more and more nearly to a system of soiling, and has no doubt of the superior merits of this mode as compared with pasturing alone. Orchard grass mixed with clover has been found better than other kinds, as after cutting, or after it is grazed off, it renews itself very quickly. Readers are already informed that Mr. C. has in past years been an extensive grower of roots. As his stock has decreased of late, of course the quantity grown has also fallen off, but for two years in succession his

crop was some 25,000 bushels. In one case 1,300 bushels were grown upon an acre. Ruta bagas he sows from the 1st to 15th July, and finds that the roots if cut up and mixed with a little salt and meal or ship stuff, 12 hours before they are required for the cows, will impart no flavor whatever to their milk. He was fully aware of the injudicious nature of too exclusive feeding on roots, and his habit has been to make a mixture to each bushel of one gallon of corn meal, or two gallons of meal and bran together, to two bushels of roots, varying the amount fed to each animal from the quantity first named to the second, according to the requirements of the case, accompanying it with all the hay they wanted. As turkeys, he remarked, would not be healthy or well fattened, if confined exclusively to a diet of worms, but should have also a modicum of corn to accompany their animal food, so the cattle would thrive much better upon a proper admixture of roots and grain and hay.

Wire Fences, &c.

At the risk of repeating what has heretofore been published, I am tempted by Mr. Calvert's success in *wire fencing* to add a word as to his way of doing it. He has a very large extent of this fence, and is well pleased with its durability and strength. It is a frequent occurrence for strangers who notice it in passing, to write requesting a description and directions for imitating it—a letter of the kind arriving while I was there. It is made in panels, a post being placed once in about eight feet, for which not very heavy wood is required, say three inches in diameter at the top. Once in about a hundred yards, however, a strong and well braced post is necessary, or when possible a tree is made to answer the purpose. To one of these the wires are securely fastened and carried to the next stretching post, where they are tightened as straight as possible and well secured. The intermediate posts they do not *pass through* by means of holes—it is found preferable to attach them by a *staple driven down upon the wire*, so that it cannot slip in one direction or the other. Each panel is thus made complete in itself; that is, the wire if broken does not slip through from one to another, the contraction in cold weather is not sufficient on a distance so short to work injuriously, and a much more secure barrier is formed against stock than where a little pressure will affect a greater length. A strip of board six or seven inches wide is nailed next the ground to keep out hogs; two wires follow, each five inches apart, then one at a distance of six inches, and lastly, two more, each twelve inches from the one below. No. 4 wire makes the strongest fence.

The extent of Mr. Calvert's green-houses is such as to render them a source of profit, as they include the means of propagating many more plants than his own grounds require. Of verbenas, fuchsias, camellias, and many rarer plants, his collection has become very large. It is expected that the grapery, when the vines come into full bearing, will also be a source of considerable revenue. The account of Riversdale before referred to, is so complete in its details of the arrangement of the pleasure grounds and houses, that I shall not go into any particulars here. I will mention, however, a rustic and very neat way of constructing the stairs to ascend the terraces, as although perhaps not new to some, it was to me, and may be a useful suggestion to others. The steps are made, not

straight up and down, but obliquely, cut in the earth, each step faced with rough stones so laid as to be even with its top and render it secure and permanent. Along the sides up and down, a line of larger stones is laid with their bottom corners in the ground, and the tops an inch or two above the terrace slope. The periwinkle, which is a beautiful vine for the purpose, is planted at the bottom of each of these sides and when its thick and bright green foliage clusters over them, and the moss collects here and there where the stones are seen, the whole is much more appropriate and tasteful than wooden or stone stairs in the ordinary style can be made. A moment's sight of it would be greatly clearer than my description, but the latter may serve the purpose where the former is out of the question.

About Mr. C.'s extensive draining, I have nothing to add to what has heretofore appeared. The ground upon the front lawn from which the surplus water was thus removed, was before almost, a perfect swamp, and now, with the artificial lake in its center, is as beautiful and dry as could be desired. This lake is a channel of water about sixty feet wide, carried around an island in the middle, of nearly the same diameter, and is quite wide enough for the boys to institute upon it a regatta in miniature, between their two boats. The island is reached by a rustic bridge and adorned by a rustic grotto or summer-house.

Taking the cars at Bladensburg, in the midst of one of the heaviest showers of the season, at least so far as my own experience goes, I reached the "Monumental City" at tea-time, in the neighborhood of which I shall leave it to the future to show how much there is of interest to the farmer and the traveler.

Editorial Correspondence—IV.

WOODFORD Co., Ky., June 2.

[The notes of several intermediate letters in relation to very pleasant and useful visits in Baltimore, Carroll and Harford counties, Maryland, and in the vicinity of Wilmington, Delaware, are passed over in order to give the following an immediate insertion. They will appear, in succession, as soon as practicable.]

From Philadelphia I crossed over, by the well appointed Central Line of that State, to Cincinnati, and then, Tuesday afternoon, to Lexington. An extra train provided for the occasion, carried between one and two hundred visitors the next morning to Spring Station, adjoining the estate of R. AITCHESON ALEXANDER, Esq., and another from Frankfort also contributed its compliment towards filling the sale grounds of the day. Numerous vehicles, beside, and saddle horses in still larger numbers, lined the fences or were sheltered under the trees, and their owners, in addition to the arrivals from more distant points, rendered the assemblage a tolerably fair representation of stock circles abroad as well as at home, while I met with quite a number of farmers from other states, not specially devoted to improved animals, but merely here on a tour of general inspection. Among the company were Messrs. Thorne, Sheldon and Foster, of New-York, all of whose names will be found, by the way, on the list of purchasers, Gen. Sternberger and Messrs. Ficklin and Ludington, of Virginia, Gen. Millikin, President, and J. H. Klippart, Esq., Secretary of the Ohio Board of Agriculture, together with a number of other gentlemen from that state, Hon. S. Meridith of Indiana,

Messrs. Smith and Sleight of Michigan, and among those country gentlemen of Kentucky whose names are already more or less familiar to readers of these columns, were the Warfields, Allens and Van Meters, the Humphreys and Gratz, the Bedfords and Duncans, Hon. C. M. Clay, Messrs. R. W. Scott, A. J. Alexander, Lucius Desha, W. D. Gallagher, friends Bryant and Balance of the Pleasant Hill Society, besides many, either included or not, among the purchasers in the following table. After a somewhat fatiguing day in the field, I can do little more at this late hour than merely to transcribe from my catalogue the results of the sale. The weather was exceedingly favorable.

Circumstances will prevent my getting over to the Bourbon Sale to-morrow, as I hoped and fully intended to have done, but its results I trust I shall be able to add in a postscript to this letter.

Twenty-two Short-Horn bulls were sold as follows, from Mr. ALEXANDER's herd:—

| | |
|--|-------|
| 1. Norman, J. R. Bryant, Pleasant Hill, Ky., | \$565 |
| 2. Andover, H. T. E. Foster, Geneva, N. Y., | 220 |
| 3. Earl of Barrington, Geo. Hamilton, Montgomery, Ky., | 300 |
| 4. Richmond, Lamb, Ratcliff, Shelby Co., | 160 |
| 5. Jeweller, A. Van Meter, Fayette Co., | 100 |
| 6. Masterman, Thos. Graddy, Woodford Co., | 115 |
| 7. Walford, A. Van Meter, Fayette Co., | 100 |
| 8. Justice, John Payne, Scott Co., | 300 |
| 9. Sangamon, Nelson Lee, Boyle Co., | 590 |
| 10. Champion, S. Thompson, Cadiz, O., | 255 |
| 11. Bonny Lad, J. E. Thompson, Mercer Co., Ky., | 160 |
| 12. Wamba, E. D. Hobbs, Jefferson Co., | 100 |
| 13. Franklin, J. M. Millikin, Hamilton, O., | 165 |
| 14. Red Jacket, Dr. David King, Logan Co., Ky., | 310 |
| 15. Bancroft, J. K. Duke, Scott Co., | 95 |
| 16. Minstrel, J. G. Hardy, Mercer Co., | 145 |
| 17. Cambridge, W. G. Talbot, Bourbon Co., | 360 |
| 18. Marmaluke, W. Stanhope, Woodford Co., | 350 |
| 19. Juryman, T. D. Elmore, do., | 280 |
| 20. Colchester, V. Payne, do., | 90 |
| 21. Ancester, S. R. Grundy, Washington Co., | 200 |
| 22. Master William, L. E. Carton, Nelson Co., | 100 |

Total for 22 bulls and bull calves, \$5,000
Add for 1 reserved bull calf got by Duke of Air-
die, and sold at private sale to E. G. Bedford,
Paris, Bourbon Co., 1,000

Total for 23 males, \$6,000
Being an average to each of about \$261.

COWS AND HEIFERS.

| | |
|--|-------|
| 1. Norabell, Geo. Smith, Shelby Co., Ky., | \$180 |
| 2. Beatrice, imp., do. do., | 455 |
| 3. Alice Wiley, imp., S. R. Grundy, Springfield, Ky., | 300 |
| 4. Fenella, imp., Saml. Thorne, Dutchess Co., N. Y., | 600 |
| 5. Abigail, imp., E. L. Davison, Springfield, Ky., | 205 |
| 6. Mary Ann 21st, S. W. Ficklin, Charlottesville, Va., | 155 |
| 7. Flora 3d, S. W. Ficklin, Charlottesville, Va., | 405 |
| 8. Vara, J. O. Sheldon, Geneva, N. Y., | 200 |
| 9. Mistletoe, S. C. Ludington, Lewisburg, Va., | 135 |
| 10. Bethia, do. do., | 305 |
| 11. Miss Wiley 6th, H. C. Gratz, Woodford Co., Ky., | 250 |
| 12. Verity 3d, R. W. Howe, Moorefield, Ky., | 160 |
| 13. Gulnare, Jas. O. Sheldon, Geneva, N. Y., | 160 |
| 14. Primrose, do. do., | 335 |
| 15. Midge, do. do., | 125 |
| 16. Songstress, C. M. Clay, Madison Co., Ky., | 130 |
| 17. Chance 4th, C. B. McCloskey, Nelson Co., | 275 |
| 18. Alberta 2d, Jas. O. Sheldon, Geneva, N. Y., | 115 |
| 19. Emily Cattley, do. do., | 160 |
| 20. Miss Wiley 7th, do. do., | 160 |
| 21. Orba 6th, S. W. Ficklin, Virginia, Va., | 170 |
| 22. May Rose, S. R. Grundy, Springfield, Ky., | 280 |
| 23. Joanna, J. L. Millikin, Ohio, do., | 130 |
| 24. Baroness, Robt. Moseley, Garrard Co., Ky., | 100 |
| 25. Norma, J. M. Milliken, Ohio, do., | 90 |
| 26. Melody, S. W. Ficklin, Va., | 115 |

Total for 26 females, \$5,755
Add for 1 cow not offered, but subsequently sold
at private sale to Mr. Ludington, Va., 500
..... \$6,255

Being an average to each of the females of \$231.67.

Fourteen yearling South Down rams were sold as follows:—

| | |
|---|------|
| No. 1. Phillip Swigert, Frankfort, Ky., | \$31 |
| 2. J. K. Duke, | 36 |
| 3. C. M. Clay, | 86 |
| 4. Wm. Garrett, Woodford Co., | 25 |
| 5. Frank Kinkaid, do., | 35 |
| 6. J. G. Kinnaird, Fayette Co., | 40 |
| 7. Rich'd Higgins, do., | 31 |
| 8. H. T. Duncan, do., | 28 |
| 9. R. Johnson, Scott Co., | 35 |
| 10. S. Meredith, Indiana, | 28 |
| 11. H. Gratz, Scott Co., | 41 |
| 12. H. T. Duncan, | 32 |
| 13. E. D. Hobbs, Jefferson, | 30 |
| 14. John Jeans, Fayette, | 25 |

Total for 14 head, being an average to each of \$36, \$503

Since the conclusion of the sale we have been looking at some of Mr. Alexander's stock bulls. "Albion," white as his name imports, sired in England by the noted "Grand Turk," out of "Frances Fairfax," and calved in this country March 14, 1856, attains very nearly to the Short-Horn breeder's standard of perfection. Such indeed, is his excellence throughout, that his color will be little against him, if at all, and with perhaps one or two unimportant exceptions, he is regarded as equal to his sire by those who have seen them both. Orontes 2d, Duke of Airdrie, Dr. Buckingham, El Hakim, &c., having been previously noticed in our columns, and as it is nearly midnight, and this should be sent early in the morning, I must forego another word at present. L. H. T.

Training Steers to the Yoke and to Work.

It is one thing to train steers to the yoke, and another to train them to work—even as knowledge of the theory differs practically from "knowing how," and *going through with it*. As in teaching human scholars, "one thing at a time" is better acquired, than a miscellaneous jumble of information, so it is in teaching steers, and the first object is to train them to wear the yoke and to obey the commands of the driver.

Four pair of steers can be trained at once, with nearly the same ease as one. The first step is to shut them into a well-fenced yard, with an area of from twelve to sixteen square rods, where the driver can stand in the center and make the steers travel around him. They should be kept going in pairs or Indian file, until they will allow his approach—until they learn to be handled without fear, which is an important rudiment in the education of an ox. In doing this, the same patience and gentleness should be exercised which is expected of the teacher of a school—a patience which never yields to vexation. In a short time they will allow themselves to be yoked on either side, and can be driven anywhere, either in or out of the yard. Four days spent in this way, will better train steers to the yoke, than 4 months of miscellaneous farm service, and they will be better cattle for all kinds of teaming, and sell for a higher price. The drilling in the yard should be continued until they can be driven with ease. To learn them to stand when left to rest, they need hitching as much as a span of horses.

When steers are trained to drive well in the yoke, the entirely different operation of training them to work should be commenced. This should proceed by degrees, with light loads and short journeys, until they give evidence of ability as well as knowledge. Oxen can be trained to work with as little expense to the

natural spirits of the animal, as the horse, and it should be the aim of every ox-teamster, to train his cattle to work well without discouraging or abusing them.

Doubtless many of our farming readers are training steers to the yoke this season—will they adopt the rule, "one thing at a time," and break to the yoke before putting them untaught to drawing loads; and after a patient trial, report success or the want of it for our columns. One thing should be remembered—no farmer is competent to manage steers, who cannot govern and manage himself.

Green Rye for Soiling Cattle.

MESSRS. EDITORS—In the No. for May 27, I see an inquiry about green rye for soiling. I have been raising rye for soiling for the past ten years. I commence cutting about the last of April or first of May, or as soon about as the heads begin to appear. For the first few days I mix hay and green rye in equal parts, running all through the cutting-box, for my horses and working oxen, and adding meal according to the work required. For my cows, I think the rye and hay as good as hay and bran. As the rye gets larger and harder, I discontinue the hay and feed rye alone, just as it is cut from the fields to my cows, but continue the cutting for the teams until the orchard grass is large enough for them.

I sow early on rich land, for the first feeding; sow later and very thick, and, if necessary to keep it back, pasture it in the spring, for my last feeding. I think rye the most profitable crop for a short time in the spring, of any green crop I raise. I have soiled from twenty to thirty head of cows all summer, for the past fifteen years.

Can you or any of your subscribers tell me if winter barley is grown in New-York, or as far north as New-York? If so, where can it be had, and at what price? LEWIS BAILEY. *Moray Farm, Fairfax Co., Va.*

What England Eats from Abroad.

The recent returns of the English Board of Trade for the year 1857, are reviewed in the *London Field*. The importation of wheat showed a very large increase in the amount brought from Prussia, a large decrease in that received from the Danubian provinces, and a very heavy falling off in American imports—the inducements as regards price not having been sufficient to draw our large surplus across the water. The importation of barley in 1857 was nearly two and a half times that of 1856; oats also show considerable increase, but Indian corn a large diminution. The total importation of wheat-meal and flour for the year 1857 was 2,178,148 cwts, while for 1856 it was 3,970,100 cwts, thus showing a diminution to the extent of 1,791,752 cwts. Among stock and other importations for three years were:

| | Cattle. | Calves. | Sheep. | Swine. | Eggs. |
|-----------|---------|---------|---------|--------|-------------|
| 1855..... | 73,750 | 23,777 | 162,642 | 1,217 | 99,782,800 |
| 1856..... | 61,862 | 21,444 | 145,059 | 9,916 | 117,230,600 |
| 1857..... | 64,848 | 27,315 | 177,207 | 10,677 | 127,039,600 |

Guano shows an increase from 191,501 tons in 1856 to 288,362 in 1857, and potatoes the immense increase from 58,261 cwt. in 1855, and 109,838 cwt. in 1856, to 955,057 cwt. in 1857—an evidence of the havoc committed by the rot in the home crop of the year. The importation of provisions, bacon and hams, salt beef and pork, butter and cheese, was of about average extent.

Composted Manure—Muck.

The "great manure question" is yet up for discussion, and probably will not be *finally settled* for some time to come. Our present purpose, however, is not to attempt original views, but to speak first of composted manures, and then offer some remarks on the various forms of compost into which muck may profitably enter.

The question of composts we find thus stated in substance by a contemporary:—It is generally admitted that the nitrogen of yard manures is their most valuable constituent. Chemists tell us that plants take their nitrogen in the form of ammonia, and that ammonia is a product of fermentation. If, then, ammonia possesses this great value, is it not obvious that the manure should pass through the process by which ammonia is produced? The decay of ordinary yard manure, as ordinarily mixed with the soil, is not by fermentation, but by a slow and gradual decomposition, termed *eramaucasis*. What is wanted is not a high degree of fermentation, but that degree of heat which is sufficient to soften and break down fibrous matter without consuming it.

The object of composting then is to get *rotten* manure, or to cause to begin, at least, the process of decay. "The farmer will always adopt the safest course," says STOCKHARDT, "who suffers his manure not to putrify, but simply to *commence* this process upon the muck heap. According to the opinion of practical men, this period has set in when the straw assumes a somewhat brownish color, and has become so tender as to be torn readily by the fork in loading. Theory may be represented as agreeing with this decision."

Of the importance of composting, a farmer of large practical experience, JOHN JOHNSTON of Geneva, recently remarked:—"Manure, in my opinion, must be *fermented* to make it valuable for the first crop. Take *fresh* manure from the yard, and apply it to spring crops, and *with me* it does no good with that crop. One thing I firmly believe—that manure requires (heaping from or in the yard, and) a good deal of rain after it is heaped, and turning beside; it also requires age to make it most efficient on my land."

The best method of composting animal manures requires the use of *absorbents*, and in common practice, straw is the material employed. But sufficient straw cannot always be had, and if it could, there are better substances which may be used. With manure alone, too great a degree of heat is evolved from too rapid fermentation—a heat and fermentation which can be made very useful in converting other substances into valuable manure. By mingling these substances with fermenting manure, the amount of fertilizing material is largely increased—an object of much importance to the farmer.

One valuable, but too often overlooked, absorbent, is swamp muck or peat. Let us look at its character and uses in a manurial point of view, practically and chemically.

Of what is muck composed? Of decayed, *vegetables*—mosses, grass, leaves, and woody matter, pretty thoroughly decomposed. "Peat," says DANA'S *Muck Manual*, "is the result of that spontaneous change in vegetable matter, which ends in *geine*"—a term which, "in an agricultural sense, includes all the decomposed organic matter in the soil. It is highly concentrated vegetable food, not only partly cooked but seasoned."

Dr. C. T. JACKSON, from an analysis of twenty samples of peat from different localities in Rhode Island, obtained an average of 72 parts of *geine* and 24 of salts and silicates, in 100 parts—dried at 300°. Muck, even when allowed to drain all it will, still contains more than three-fourths its weight of water.

DANA makes the following comparison of a cord of muck with a cord of fresh cow dung:—

| | Weight. | Soluble <i>geine</i> . | Insol. <i>geine</i> . | Salts of lime. |
|-----------|---------|------------------------|-----------------------|----------------|
| Dung, --- | 9,289 | 128 | 1,248 | 92 |
| Muck (1.) | 9,216 | 376 | 673 | 91 |
| do. (2.) | 9,216 | 319 | 529 | 81 |

"The power of producing alkaline action on the insoluble *geine*," he adds, "is alone wanting to make peat as good as cow dung. Reviewing the various matters, from whatever source derived, solid or liquid, which are used as manure, all possess one common property, that of *generating ammonia*. The conclusion, then, of the whole matter, is this: the value of all manures depends on salts, *geine*, and ammonia, and it is directly in proportion to the last; it follows that any substances affording these elements may be substituted for manure."

Muck, then, only needs some addition to make it capable of generating ammonia, to give it great value. "It is only necessary," says Prof. JOHNSTON, "to mix half-dried peat with any substance which undergoes rapid spontaneous decomposition,—when it will more or less speedily become infected with the same tendency to decay, and will thus be rendered capable of ministering to the growth of cultivated plants." Any alkali, as ashes, or any fermenting manure, animal or vegetable, will produce ammonia from the decomposition of the nitrogen which muck always contains. Many processes, some of which will form the subjects of future articles, have been successfully employed for the conversion of muck into active manure—and all depend upon the principles hinted at in the above remarks.

On Making Composts.

MESSRS. TUCKER & SON—I often see accounts of experiments of composts by mixing wood ashes with hen manure, guano, barn-yard manure, and other manures containing ammonia. Now experience has proved to me that the practice is a bad one, and I would corroborate the testimony of Mr. L. BARTLETT, in the *Co. Gent.* of May 13. I have been in the practice of mixing ashes with manures, but a little incident in my farming operations, gave overwhelming evidence that the practice was wrong; therefore I have discarded it entirely. Here is the history of it: I told my Irishman to draw a pail of urine from a barrel containing it—(all the urine I can save is either put in a barrel or distributed over a compost heap of muck, and it is the best manure I have)—and put it on the ashes in the ash-house and mix them together. He did so, and commenced shoveling over the ashes, but soon halloed out, "Fath, I can't stay here." Why, says I? Says he, "my mouth is full, my nose is full, and my eyes are full." I went to him, and sure enough the ash-house was filled with the ammonia or hartshorn. He left the ash-house in double quick time, and I have never ordered any urine to be mixed with ashes since. I have come to the conclusion that the union of alkalis with ammonia is a wasteful practice, for the ammonia is released, and floats away in the atmosphere. JAMES CHILDS. *Deerfield, Mass.*

A Cheap Horse Power.

The admirably constructed endless-chain powers of Emery, Wheeler, Pease, and others, have proved machines of great convenience to moderate farmers, who do not wish to be dependent on itinerant eight-horse power thrashers, requiring several extra horses and extra hands. It is both independent and economical to be able to thrash grain within doors, in winter, or during stormy weather. The chief objection to the endless-chain power is their cost. We have lately examined a horse-power manufactured by Hildreth & Charles of Lockport, N. Y., and furnished much cheaper, or at less than half the price of the endless-chain powers. The accompanying cut, (fig. 1.) gives a fair representation of this power, needing little further explanation. It is

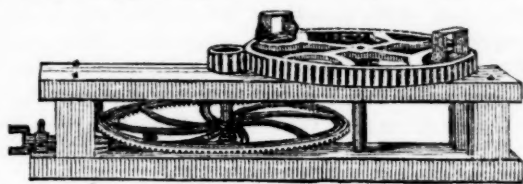


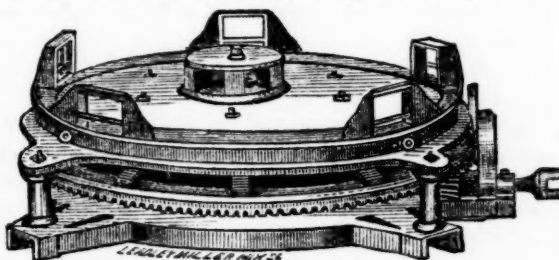
Fig. 1.

best secured to its place and kept solid by wedging into mortises in two logs, set in the earth, across which it is placed.

It is usually for two horses, but strong enough for four. In addition to thrashing, it may be employed in sawing wood, pumping water, driving straw-cutters, cap-augers, slitting saws, for turning grindstones, or churning.

The "tumbling rod" revolves about a hundred times in a minute—a suitable velocity for a cross-cut saw, for cutting logs into stove-wood.

A larger, more durable horse-power, manufactured at the same establishment, is figured below. It is



wholly iron, very neat and compact, and so durable that some have been run for years without the expenditure of a dollar in repairs. The whole gearing is covered with a cap, so that the driver cannot be injured, and the wheels are protected from dust. It is adapted to eight or ten horses, and the cost is \$110.

TUCKER'S ANNUAL REGISTER for 1858, Albany, N. Y. LUTHER TUCKER & SON. Sent for 25 cts., 144 pp., 130 engravings. Affords more useful information for a farmer than can be anywhere procured for an equal amount of money. And if any farmer had to lose one meal a day for a week, to save a dollar to purchase the vols. for 1855, 6, and 7, bound in one vol., and sent for that dollar, he and his family would be life-long gainers—440 engravings, treating of over 500 different subjects, in reference to gardening, farming, and domestic appliances. We believe it to be the most variously useful book to all persons who live in the country, we have ever noticed.—*Half's Journal of Health*, N. Y.

Advantages of Draining.

Much as has been written on this subject, its importance is not yet fully appreciated. We do not assert that all lands absolutely require draining, yet full one-half do, and nearly all would be benefitted by it. Here and there, a new farm, whose soil is full of the partly decayed roots of trees, is drained more or less by them. But when these roots shall have perished, the soil will settle compactly together and render artificial draining important. On some farms the subsoil is gravelly, allowing the surface water to pass off easily; and here, of course, no other drainage is necessary. But more frequently, the subsoil is a cold, stiff clay, preventing the escape of water, and making draining essential to good husbandry. Travel where we may, we see thousands of acres, abounding in all the natural elements of fertility, yet of little practical value because surcharged with surplus water. We see this, too, in portions of the country, where the farmers are intelligent and industrious, and might be presumed to be awake to whatever concerns their real interests. Is there not room for improvement, here, in American agriculture? Instead of urging farmers to "plant one acre more," we should first exhort them to *drain* one acre more. And this we would do, not as a mere echo of Scotch and English notions, but as a principle which live Yankees have worked out for themselves, and proved to be of great importance in American husbandry.

It is easy to ascertain what land needs draining. In case of doubt, dig several holes in different parts of the field or garden under consideration, at a time when the surface soil is moderately dry and fit to plow. If water collects in the course of a day, and stands in these pits, it may be taken for granted that the land would be benefitted by draining.*

It is a weighty argument for draining, that it relieves the ground of surplus water early in the spring, and so enables the work of the farmer and gardener to commence earlier than it otherwise could. It also makes that work easier and pleasanter. When the ground is undrained, it cannot become dry except by evaporation, or by the oozing away of the water, particle by particle, through a long reach of stiff soil into some natural outlet. Meanwhile, the farmer must sit with folded hands in comparative idleness, knowing that by the time his land had become dry, his work will accumulate and press upon him with a burden he can hardly bear. It would not be strange if some of that work should be left undone, or be slighted. Let but suitable drains be cut through that land, and the melting snows and drenching rains would speedily find their way in these channels and leave the ground dry and warm, and ready for tillage several weeks earlier than fields not so treated. It would tend to relieve farm life of a great objection to it, in many minds, viz: that it imposes such hurrying and exhausting labors at particular seasons, and especially in spring. It would enable the farmer to get certain crops into the ground earlier, and so make sure of a vigorous growth before the drouths of mid-summer, and of maturity before the frosts of autumn. The farmer at the extreme north, who sometimes repines at the shortness of the growing season, and the coldness of his soil, would thus practically gain almost a degree of south latitude without the necessity of selling his farm and moving his household gods.

Draining is beneficial to the farmer and gardener, also, in that it relieves the ground of surplus water during the cold season, from November to April. Every farmer knows that his wheat and grass are injured by standing water at this time of the year. The freezing and thawing of water about the roots of these crops, tend to heave them out of the ground, and when the winter is over, the soil which has lain charged with water is left in a cold, sour state, which the balmy summer succeeding cannot fully restore to a warm and healthy condition. The orchardist on such land finds his young trees either killed outright or badly stunted and moss grown. His peaches, grapes, and other choice fruits, if they live, do nothing more. But when the ground is well drained, wheat passes through the winter safely—unless too much exposed to the winds—and grass lands retain their smooth surface, free from sorrel and mosses, and fruit and ornamental trees and vines, otherwise tender, come out in spring unscathed.

Draining renders the ground more porous at all seasons of the year, and enables the roots of trees and plants to descend deeper into the earth, and so to find more nourishment. In lands undrained, only a few inches of the top soil are light and dry. The subsoil being habitually wet, the particles adhere firmly together, like tough mortar, rendering it almost impossible for the roots to penetrate them. And if they could do so, of what benefit would it be? They would find not only few of the elements of growth, but also many elements noxious to vegetable life. In dry weather, too, soils of this description bake, and crack open in large fissures, allowing the heat to penetrate among the roots of trees and plants. On the other hand, in properly drained ground, the water leaches through the soil and subsoil into the drains, leaving behind it a thousand minute pores or channels throughout its whole extent, and making it comparatively friable, light and warm. The cold, stagnant water having been abstracted from the bottom soil, and that soil rendered porous by the process, roots of trees and plants push into it at once, and find there a wide field for forage. It is an annexation of new territory, over which they rejoice to spread themselves. Defiance, now, to the dog-star! The roots are not confined to a few inches of surface-soil: their mouths are down near to the nether springs. The drains carried off the excess of water in the wet season, but by rendering the subsoil porous, the moisture more easily rises again to the surface when it is wanted, in the dry season. *This is one of the most beautiful and important results of draining.* Contrary to the fears of some, draining is beneficial to land in time of drouth, hardly less than in the wet season. Paradoxical as it may at first seem, the best way to prevent land from becoming too dry, is to drain it! This benefit will undoubtedly be the more apparent, if the draining is accompanied with thorough subsoiling or trenching, yet it will be obvious without it.

Draining also facilitates the work of enriching land. Manure applied to the surface, instead of being washed off by the rains and lost, is carried downward, and its juices incorporated with the soil. Yet it is not carried beyond the reach of the plants—it seldom, if ever, descends three feet—nor is it borne away through the drains. The increased benefit which land so treated derives from the atmosphere and from the rains and dews, is worthy of much consideration. The soil is in

the best state for imbibing and retaining the fertilizing gases with which the air may at any time be charged.

The benefit to the health of the inhabitants, arising from the draining of land, is a matter of great importance. But upon this, as well as some other points, we cannot now dwell. The late Mr. Downing's recipe for successful gardening, was: trench, trench, TRENCH! A recipe for success in all agricultural operations, should begin with, drain, drain, DRAIN! A. D. G.

One of the Things Essential to a Good Crop.

There is one of the conditions indispensably requisite for securing large and remunerative crops, which is not unfrequently either forgotten or neglected, and which may be now called to the remembrance of some or brought to the knowledge of others with some prospect of advantage, as it is only during the early stages of vegetation that the farmer or gardener can avail himself of it. We refer to the giving of every possible aid and assistance to the growth of plants in their earliest stages. This aid may be given in several ways—some before sowing or planting, by duly manuring and fitting the soil, and some, with which only we have now to do, during the first days or weeks of vegetation. The chief of these latter, consist in keeping down weeds, stirring the soil and keeping it loose, and applying fertilizing dressings either in a dry or liquid condition.

Mere statements or assertions of the beneficial influence of these things in giving to plants an early and a vigorous start, and in preventing their becoming so sickly and stunted that they never wholly recover from that condition, are likely to have much less effect upon those not already convinced and well aware of such influence, than the observation of the contrast between a few well cultivated and a few neglected plants of any kind would be. Let any one who wishes to ascertain how much such aids to healthy and vigorous growth, in the early stages of the life of plants, contributes to largeness, early maturity, and even the quality of a crop, take two contiguous patches of carrots, corn, or any other hoe-crop on farm or garden, and observe carefully the contrast until they are harvested, between those plants which have had, especially in the earlier stages of their growth, all the aid and assistance which thorough weeding, frequent stirring of the soil, and a judicious application of fertilizing dressings, either dry or liquid, can be made to yield, and those which have been more or less neglected in all these particulars. In addition to this, a portion of the plants neglected in their earlier stages—say until the weeds have got the start of the plants, or until the surface of the soil has become pretty well crusted—may be taken, some week or two after the well cultivated patch has received all due attentions, and then receive the care and culture which those duly cared for have had ten or fifteen days previously, and the contrast throughout their whole growth will very certainly convince any observer that no subsequent care or labor, however great, will ever make amends for the early neglect.

The observation of the contrasts which such an experiment would present might do more, in the way of producing a thorough and an operative persuasion of the beneficial effects of careful culture in the earlier stages of the growth of plants, than any mere assertions or statements from us or any one else. Let those then, not yet thoroughly convinced, try some such experiment, and thus learn how essential to good crops is a due care of them in their youth or earlier stages

Best Mode of Curing Hay.

MESSEURS. EDITORS—I notice that a controversy still goes on respecting the time of cutting and manner of curing hay, especially timothy. I now intend giving my views at length, as it has been my study for half my life time, to cut and cure at the time and in the manner most palatable to animals, and at the same time most nutritive. I believe nothing of food kind is nutritive, unless it has a good flavor or smell; therefore it is important, both for our own interests and for the comfort of the dumb animals under our care, that we should have their winter food prepared in the best manner we can to retain a good flavor. I will state my reasons for this opinion: I was informed long ago, by one who I supposed knew, that to make the tobacco plant a narcotic, it had to be gathered at a certain time, and cured in a peculiar manner. If not so gathered and cured, it would be insipid, or lose its narcotic quality, and would not be used by man; and that beautiful flower, the fox-glove, requires to be gathered at a certain stage of its growth, and cured in a very peculiar manner, being dried in the dark, and then called Digitalis, a powerful medicine for both man and beast. So it is with other medicinal flowers and herbs; they need a certain treatment, both in the time of gathering and curing; otherwise they are worthless. Such reading led me to try, and if possible find the best time for cutting and manner of curing hay; and I doubt not, had hay been made for man, that centuries before the 19th, it would have been a settled point by man, or good housewives, as to which is the best time of cutting and curing it, to answer our tastes.

I will now give my time of cutting, and also manner of curing when cut by scythes, as also the manner which I think indispensable when cut by machines.

As to time of cutting, I know that every farmer will agree with me, that nothing they ever fed to cattle, (that are fairly fed during the winter,) will put on as much fat or increase their weight near as much in a given time, (say two months,) as rich pasture. Therefore I argue that grass should be cut for hay, and not let it stand until it becomes dried hay before it is cut. If I could cut all my hay in a day or two or a little longer, I would let timothy stand until the seed was formed, but still quite soft; but as that cannot be accomplished in the time mentioned, I begin when in full flower.

When cut with the scythe, and the grass heavy, I did all the curing in the swath. Grass will stand a good deal of rain, without injury, if left in the swath, when cut green. When I intend to take it in, if not thoroughly dry on the lower side, if wet from rain I turn the swaths over before raking, if even somewhat green on the underside of the swath; but if no rain had fallen, I raked it up, and took it into the barns. In that way it took a sweat if a heavy crop in the swath, and another sweat in the mow; and I hold it indispensable that hay, for either sheep or cattle, should have a sweat, and it is equally requisite as that tobacco or fox-glove should have their peculiar modes of curing and time of cutting. If a light crop cut with scythe, as soon as a little wilted, I raked up, put in good sized or rather large cocks, let it take a good sweat in the cocks, and let them alone until dry enough to take in. (Timothy hay cut green and cocked in a

green state, will stand much rain without much injury if let alone) In this way I always made fine flavored hay, and my stock always did well upon it.

But since we all around here cut our grass with machines drawn by horses, the mode of curing must be somewhat different to make fine flavored nutritive hay. The machine cuts and spreads it as evenly as it grows on the ground; therefore it dries much more suddenly than if cut by scythes, and the horse rake ought to be started a few hours—(more or fewer, according to the temperature)—after the machine is started, and the grass put in cock, and not left until the machine has done a day's work, and until the dew goes off next morning. If a high temperature, your hay will then be so dry that it will take no sweat; hence no flavor, and much less nutriment. The trouble with those men who make a trial of cutting green, is that they dry it so much in the hot sun that it cannot sweat in either cock or mow. I have seen stacks of hay in many places, the hay having been put up so dry, that if my arm had been long enough I could have put my hand through them, and that after they had stood for months, and the hay had no more flavor, (except the little ripe seed left on,) than brush from a dead tree. I want to see no stacks or hay mows put up for me but will in a week or ten days become so solid that it is with difficulty you can push your hand into them one foot.

Now, Messrs. Editors, I have given you, as lucidly as I can, my views and reasons for deviating from the rules laid down by far more learned men, as to the time for cutting and manner of curing timothy hay, and indeed all other kinds of hay I have had any experience with in this hot climate. Yet I have no doubt but some of those men, possessed of good talents, will criticise my mode not a little, but all I ask is, that my brother working farmers will prove me and try me, and see whether I know anything of the true principles of making and time of cutting hay. Let them follow my plan strictly, and then either approve or condemn it, according as they find it. As haying will be in less than two months, I should be pleased if 500 farmers in the State of New-York would give my plan a trial and report.

It is high time, in this age of enterprise in the world, that the true time and method of cutting and curing hay was known, so as to make it most pleasant to the taste of the dumb brutes, and most profitable to the owner. JOHN JOHNSTON. Near Geneva.

Draining Increases the Effect of Manures.

Draining not only "deepens the soil," but largely increases the effect of the application of manures. Every farmer may have noticed the difference resulting from fertilizing material applied alike to even a single field, without being able to satisfy himself as to the cause of that difference. This variation in effect most frequently takes place on clayey soils, or on springy spots with an impervious subsoil, and such wet places, however highly manured, cannot be made to produce good crops. Yet, when thoroughly drained, there are no soils which better reward manuring and cultivation than these.

The elements of manure act upon plants only in a state of solution; hence it is of the greatest importance that they be so applied, and that the soil be so prepar-

ed that they may not only be readily dissolved by the rain, but that the rain may freely pass through the soil, which, acting as a filter, arrests and holds these elements where they will best serve as food for vegetation. Manures applied to undrained land are readily dissolved by the rain, but are left floating upon the surface, and thus often pass away by evaporation or in the surface drainage of heavy rains, the saturated subsoil not allowing them to sink to the roots of the plants, or to be absorbed by the soil. This is one great reason why manures produce such trifling results on heavy lands, especially in seasons of abundant moisture. In very dry weather but little more effect follows their application, from the want of a solvent, such as is ever supplied by the water retained in mellow, porous earth.

"Draining renders the land penetrable to water," says a writer on this subject, "enabling the rain to descend freely through it, carrying to the roots the fertilizing elements with which rain water is always charged," as well as those it takes in solution from manures. The effect of manures is also much increased by an intimate mixture with the soil. Such mixture can be but imperfectly obtained in the case of hard and shallow land, either in a wet or dry state. It will always be found that mellow and friable soils receive most benefit from manures, and that clayey soils, if made mellow by draining, possess the greatest absorbent powers, and are of the most productive character, compared with sandy and light or mucky loams.

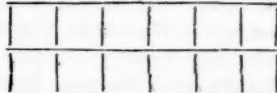
The true policy of the farmer is to use every means in his power for rendering his labor more effectual and his farm more fertile, and in no way can this be better accomplished in the case of wet and retentive lands, than by *draining*, and thus deepening and increasing the productive powers of the soil.

Culture of Beans—the Best Bean.

MESSRS EDITORS—In Co. Gent. of April 29, is an article on bean culture. I shall give you my system of sowing and harvesting beans, all of which ripen uniformly. Beans are more grown by market gardeners than they are by farmers. There are around Philadelphia market gardeners and nurserymen who pay their rent by this crop. The army and navy are the principal consumers of the bean, it being used by them as a substitute for the potato. Their market value is generally ruled by the price of wheat; they usually bring the same price per bushel. The variety which I grow is the large English White Kidney, which I have found to be the best grower and yielder of any bean I have grown. It also brings in the New-York market from twenty-five to fifty cents a bushel more than the small bean. It is for the grower and consumer much better than the small one. It is not of so strong a flavor for eating, being mild and quite palatable. It is also a much better yielder than the small one; it being double the size of the small one, it does not require so many to fill a bushel, and they are much easier threshed, cleaned, and hand picked. In fact, I would rather grow the English White Kidney to sell at one dollar a bushel, than I would the small one at double that price. I should realize more at the former.

The English White Kidney is a bush bean, growing from 16 to 18 inches high, with large dark green leaves. I sow them with my field corn, marking out the ground with the plow, leaving the furrows from three to four

feet apart, (according to size of corn,) marking both ways thus,



and sowing at the angles. This gives you straight lines from all sides. I mix up my beans and corn, and the men carry them in an apron. At each of these angles I drop four grains of corn, (afterwards thinning to three,) and three beans, covering all with the foot. A man thus plants and covers at once. This covering will be about half an inch deep, which I have found all sufficient for both crops, and not so liable to be smothered as when covered with the hoe, and it takes but half the time as the hoe operation does. I then keep all cultivated level.

Those who grow corn by high hilling, (a bad practice,) can also grow the beans, but not with the success that they could by flat culture; but I presume that all farmers of intelligence have now adopted, so far as practicable, the level system. The argument usually urged against the level system, is that the corn has no support against strong winds except it be well hilled up. I have grown corn one year on the hill system, which fully satisfied me that the flat culture was best, which is very easily explained, and the same explanation holds good in the cultivation of most other things that are grown in hills. When plants are grown on the hill system, they, being above the surface, draw the roots to the outside of the hill; if those roots are not again earthed up on their appearance, they are burnt up by the sun; if carefully attended to, as in amateur working, it is best by gradually drawing those hills to the surface. When corn is grown level, you obtain beans from the seed leaf up, thus saving the whole of the plant for fruit; if on the hill system, you lose the first joint of the stem by putting the earth up.

The principal objection to bean culture is the harvesting of them. This, when properly done, is the most simple part of it. The usual way of drying them is to pull and spread on the ground. If it should keep dry weather this is well enough; if it should rain, they will more or less shell. My way is, when cutting the corn, to pull the stalks to you, cutting the usual height from the surface, a man following (to four or five cutters) pulling the beans up by the roots, placing a round stick a foot in the ground and five or six over ground; around this stick lay some stones, say four to six inches high and from twenty to thirty inches in diameter; you then place your beans, the stems against the pole, allowing the roots to be on the opposite side; your next handful you lay with the top on those last laid roots, and the roots of this on the pod and leaves, and so on to the top, forming as you proceed a sugar loaf, keeping it round, or as you would build a stack, tying the top with a straw band. By this you throw the water all to the outside, the beans being so compact as not to admit water. You can by this means allow them to remain in the field until you are ready to thresh them in November or December, the stones at bottom keeping them dry. In carting to the barn I loosen the pole by shaking, and take hold bottom and top and throw pole and beans into the wagon: by doing so you do not shell the beans. By this means I do not leave any on the ground. In stacking the beans it is better they should be placed between your rows of shocks, as by

this means your puller gets his hands full from each side, and can proceed quicker, losing no time in going empty-handed. They will also be out of the way of the huskers, and out of the way of the teams in hauling in the stalks, and when neatly laid up they look well. GERALD HOWATT. *Newton, New-Jersey.*

Value of Sheep to the Farmer.

Sheep are profitable to the farmer, not only from the product of wool and mutton, but from the tendency which their keeping has to improve and enrich his land for all agricultural purposes. They do this:

1. By the consumption of food refused by other animals, in summer; turning waste vegetation to use, and giving rough and bushy pastures a smoother appearance, and in time eradicating wild plants so that good grasses and white clover may take their place. In this respect, sheep are of especial value to pastures on soils too steep or stony for the plow. In winter, the coarser parts of the hay, refused by horses and cows, are readily eaten by sheep, while other stocks will generally eat most of that left by these animals.

For these reasons, among others, no grazing farm should be without at least a small flock of sheep—for it has been found that as large a number of cattle and horses can be kept with as without them, and without any injury to the farm for other purposes. A small flock, we said—perhaps half a dozen to each horse and cow would be the proper proportion. A variety of circumstances would influence this point; such as the character of the pasturage, and the proportion of the same fitted and desirable for tillage.

2. Sheep enrich land by the manufacture of considerable quantities of excellent manure. A farmer of long experience in sheep husbandry, thought there was no manure so fertilising as that of sheep, and (of which there is no doubt,) that none dropped by the animal upon the land, suffered so little by waste from exposure. A German agricultural writer has calculated that the droppings from one thousand sheep during a single night, would manure an acre sufficiently for any crop. By using a portable fence, and moving the same from time to time, a farmer might manure a distant field with sheep, at less expense than that of carting and spreading barn manure.

The value of sheep to the farmer is much enhanced by due attention to their wants. Large flocks kept together are seldom profitable, while small assorted flocks always pay well, if fed as they should be. To get good fleeces of wool and large healthy lambs from poor neglected sheep, is impossible. It is also true, that the expense of keeping is often least with the flocks that are always kept in good condition. The eye and thought of the owner are far more necessary than large and irregular supplies of fodder. Division of the flock and shelter, with straw and a little grain, will bring them through to spring pastures in far better order than if kept together, with double rations of hay, one-half of which is wasted by the stronger animals, while the weak of the flock pick up but a scanty living, and oftentimes fail to get that through the whole winter.

We commend this subject to the consideration of our correspondents—it is one which needs greater attention on the part of the farming public.

Read not books alone, but men, and above all read thyself.

Soiling vs. Pasturing.

Soiling, or the practice of cutting green fodder and supplying it to cows, cattle, horses, &c., in summer, in distinction from the more common practice of pasturing them, is probably neglected more than it should be, and more, also, than it would be, if its advantages and conveniences were more justly and generally considered. When the question comes up before the farmer's mind—shall I pasture all my cows, cattle and horses, or shall I take some of the land that would be needed if I pastured, and raise thereon larger crops of grain or some marketable crop, which I could do if I adopted the practice of soiling them?—when the choice between pasturing or soiling presents itself in such a form as the above, or in some other forms, which will readily occur to our readers without our occupying time and space in specifying them, then the first thing usually thought of is the expense, trouble, or other inconvenience or disadvantage of soiling. These *very promptly* suggest themselves,—much more than the counterbalancing advantages—and unless some effort has been made to find out the latter, or unless they have been made evident and brought strikingly under observation by the manifest success of some neighbor or friend who has practiced soiling for some time, the former will obtain more weight in the decision than they may be justly entitled to. If the other side of the choice—viz., the advantages of soiling—were as readily thought of or as palpably manifest, it seems highly probable that the decision to adopt or at least make a trial of soiling, would more frequently be made. We are persuaded that if some one well acquainted with all the details and advantages of soiling were to visit for consultation all the farmers of a county, township, or district, he would find a great number of cases in which he could recommend it as altogether superior and more profitable than pasturing, and that he would succeed in demonstrating this to the satisfaction of many. Being thus persuaded, we feel it as a duty which we owe to our readers, to make a column of our paper a substitute as far as possible for such a consulting agriculturist, and to present for their consideration that side of the question which they are most apt to overlook and under-estimate, when deliberating upon the respective merits and advantages of depending upon ordinary pasturing, and of making provision for summer feeding, in whole or in part, by the practice of soiling.

Let it be distinctly understood that we are very far from considering soiling preferable to pasturing in *all* cases; and we would not willingly lend any countenance whatever to such an absurdity. But we are firmly convinced that there are *some* cases in which soiling would be superior in profit, &c., to ordinary pasturing; and as the superior practice is neglected in several of the cases in which it might be adopted with advantage, we are moved by the hope of benefiting such persons to lay before them some of the considerations which should be duly pondered when a decision is to be made as to the best mode of providing food for cows, &c., during summer, or in other words, between soiling and pasturing.

The time consumed, and the trouble and expense incurred, in cutting and carrying grass or other green fodder to the cows, &c., in their yards or stables, are usually the first thing that presents itself when soiling is proposed or taken into consideration as a substitute

for pasturing, and the imagination generally magnifies these items to such a degree that the question seems to be settled at once. The time, trouble, and expense of driving to and from pasture is usually forgotten, ignored, or kept out of sight. Upon this subject one who has practiced soiling and knows whereof he affirms, has given the following testimony in our volumes for 1857, (see Cult. page 271, and Co. Gent July 30:) "I have found by actual experience, that I can feed my cows night and morning as quick as I can drive them to and from pasture, and the time spent in feeding at noon is paid one hundred fold by the manure saved by keeping them yarded."

If the whole of the article from which the above is quoted be read and candidly considered, some other prejudices and objections against soiling will probable be greatly abated or entirely disappear, and the mind be thus prepared for a fair consideration of such advantages as we are now to suggest. Let the reader, therefore, turn to that article—"My Mode of Farming"—and then consider candidly the following points of superiority of soiling over pasturing: 1. Soiling requires much less land than pasturing, by which means more cows—three or four times more—can be kept on the same area, or more be taken for tilling. 2. Fewer fences are required, and thus a great saving may be effected. 3. The waste of food incident to pasturing may all be prevented by soiling. 4. The condition and comfort of cows, &c., are greater and better by soiling than by grazing. 5. Cows also give more milk, especially in a time of drought, when pastures fail more or less. 6. Perhaps the greatest advantage of soiling arises from the greater quantity of manure which it enables the farmer to make.

With this very brief mention of the chief points wherein soiling has a superiority to pasturing, we leave the subject for the present. Should any of our readers be inclined, after considering the foregoing statements, to make a trial of summer-feeding by soiling instead of pasturing, they will find some hints about fixing stables, sheds, stanchions, yards, &c.,—hints that must be of much value to many—in the article already referred to, and in another article by the same writer, entitled "My Milk-Yard," in Cult. 1857, page 278; and in Co. Gent, Aug. 6, 1857.

Cure for Sweeny.

MESSRS. EDITORS—Are the numerous readers of THE CULTIVATOR aware of the curative properties of G. W. Merchant's celebrated Gargling Oil? Last March one of my mules got lame in one of his forelegs, which proved to be the sweeny, which we cured by inflating with wind. In about two weeks he was well again. Shortly after that he commenced to go lame in one of his hind legs, so much so that we could not work him for two weeks or more. At first we could not find out what was the cause of his lameness, but soon found that it was the sweeny also. We immediately inflated the affected place with wind, expecting to cure in a short time, but we were disappointed this time, for instead of getting better it got worse. We then commenced using Gargling Oil three times a day, well rubbed in with the hand on the affected place. (I should also mention that in both cases the skin was kept loose by pulling out with the hands.) In a short time it commenced to get better, and in about four weeks was entirely cured.

I was told by my neighbors that it was nothing to

cure sweeny in or at the shoulder-blade, but very difficult to cure at the hip, and some not to be cured at all. So much for the Gargling Oil. I consider it one of the best preparations for all external application, now in use, for either man or beast. H. KELLER. *Wrightsville, Pa.*

Bees in California.

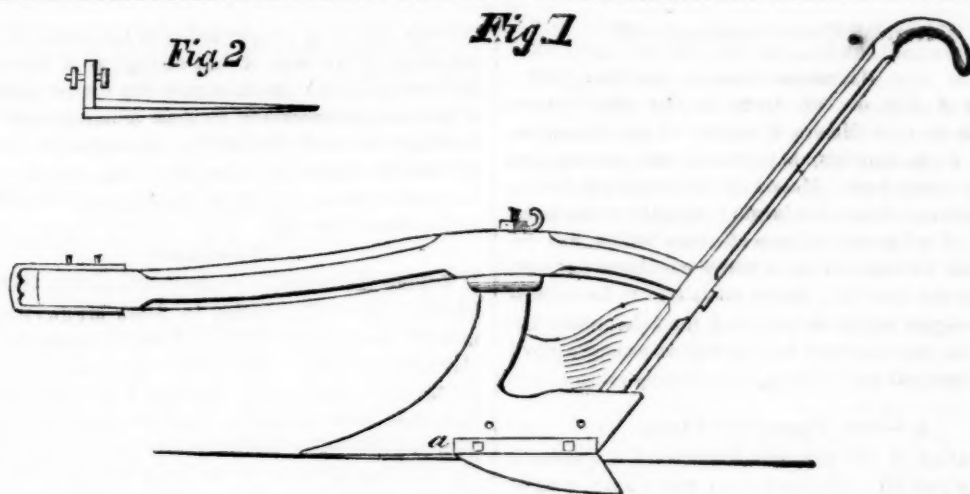
LUTHER TUCKER & SON—One of your subscribers wants to know if there are flowers here, and if bees would do well, and has asked some of your correspondents in California to let him know. The request is a very reasonable one, and I will try to answer. There are several large valleys in this State, almost perfectly level, but probably the greater part is mountainous. The valleys from about the first of March to the first of May or June, abound in flowers of innumerable varieties, and the California poppy blooms all the year. The mountains and river bottoms produce flowers much later than this; but no where do they bloom in such profusion as on the uncultivated prairies in the later spring and early summer months, when every weed has its flower and every flower its smell.

The introduction of bees into this State is of recent date, and good hives are held at \$50 each, and very scarce at that. In fact I don't know where I could get one at that price even. They flourish well at San Francisco, San Jose, Sacramento, and Stockton; and Columbia, in the mines, is said to be well fitted for them. There are *wild bees*, here, the many statements to the contrary notwithstanding. I have seen them on the peach blooms, every spring, and on the wild poppy. Two fine samples of native honey were exhibited at the fair last year; Wm. Buck of San Jose, took the premium for the honey and best collection of bees. M. WALTHALL, JR. *Stockton, Cal.*

Wild Turkeys.

I cannot agree with O. E. Wood, that wild turkeys will entirely lose their roving propensities in two or three generations. I believe that our domestic turkeys have never yet lost it. How shy they are in going to their nests—how disposed to ramble all over the farm and neighborhood. The greatest trouble I have ever found with turkeys is to keep them at home. Like E. ALLIN, I am disposed to obtain those that are least disposed to ramble.

We frequently find wild turkey nests, and put their eggs under hens to hatch, and though perfectly gentle while young, they invariably ramble off, if not killed. They will even lead off the tame turkeys, some of which I have shot wild in the woods. Again I believe it is a mistake about their being hardier. The wild hen lays her eggs about four weeks later than the tame one—her brood is then hatched when the weather is warm; besides the woods are clear of grass and weeds, so fatal to our domestic turkeys when wet with dew. They are not considered as easily raised here, and I know of no one who will tolerate their crosses here where we know so much about them. I have killed many wild gobblers, and I never found one yet that was mature under five years of age. The length of the beard is generally considered by hunters a very good index to their weight. This has been invariably the case with all I have killed, which, by-the-by, is much less than O. E. W. obtains. The heaviest I ever shot was a few mornings ago, which weighed 23½ lbs.; the heaviest I ever heard of being killed was 26½ lbs. I would advise all, then, (unless for variety) not to embark in the wild turkey trade, but if any one is still so disposed, I can furnish any amount of them at 65 cts. per pair. H. L. B. *Fayette, Mo.*



VAN LOAN'S IMPROVED PLOW.

Van Loan's Improved Plow.

The improvement consists in attaching to the bottom of the land-side of the plow a horizontal cutter, whereby the land is cut horizontally below the surface, so that it may be turned over by the mould-board during the succeeding cut, with much greater ease. Fig. 1 is a side view of the plow, with the cutter attached to the outside by bolts and nuts. Fig. 2 is an end view of the cutter, showing the flange at a right angle, and the bolts and nuts by which it is secured. A is a view of the cutter on the face of the plow. The cutter may be attached to the inside of the land-side by lapping the flange under and inside of it, and securing it in the same manner; when it is desired to pulverize the ground, the cutter should be raised about two and one-half inches, passing the bolts through holes as represented on the face of the land-side, and securing it in that position. The cutter is easily removed for sharpening, or when wanted for use on stony ground.

This plow is believed to greatly reduce the labor of the team and plowman, as numerous trials justify the assertion that there is a saving for the team of 25 to 33½ per cent. As the plow presents a much larger surface on the ground than the ordinary plow, it is evident it must run with greater steadiness, and be easily controlled, and the share is relieved of one-third the usual labor.

The cutter may be about four inches wide at the rear, and terminating at a point in front, and about 12 inches long on its face. A small plow thus constructed, with a share 9 inches across, will turn a furrow of 13 inches as easily as a much larger one can without the cutter. It is evident there will be a saving of travel over the ground of about one-third by means of the enlarged width of the furrow. This plow was patented February 16, 1858, by the inventor, Wm. W. VAN LOAN of Catskill, N. Y.

Draining Lengthens the Season.

Noah and his family are not the only people who have waited—with more or less of faith and patience—for “the subsiding of the waters.” Every farmer having retentive soils which he would sow or plant in good season, has frequently been reminded that evaporation is a tedious process, and that some quicker way

of getting rid of the water saturating the soil would be very agreeable. That it would be profitable—that in nearly every instance the expense of draining would be repaid by longer seasons, and, of course, better crops, it surely needs little argument to show.

Let us introduce some testimony on this point. At a recent agricultural meeting at Boston, Mr. RICHARDSON of Franklin Co., spoke of a springy lot which he had recently underdrained:—“The immediate benefit of this was that the soil became in condition for cultivation in good season, and did not bake or become hard.” Mr. NOURSE of Me., was present, and remarked on the effect of drainage upon his farm:—“It had put his springy, cold lands in good working condition earlier in the season than any other in the neighborhood. One lot drained in 1852, was in good plowing condition as soon as the frost was out. Before drainage, cattle could not cross it in early June without miring. It enabled the later as well as the earlier cultivation of the land. He had plowed as late as Nov. 20.” Mr. FRENCH, in his essay on Drainage, refers also to Mr. Nourse's experience, making mention of a piece of corn he planted in this land on a drizzling rain, after a storm of two days. The corn came up and grew well; although on a clayey loam formerly as wet as the adjoining grass field, over which oxen and carts could not pass on the day of this planting, without cutting through the turf and miring deeply.

Many other statements might be given, showing that draining “lengthens the season” of working retentive clay soils from two to three weeks in spring time—that busiest season of all the year to the farmer. And of equal importance is the fact that it lengthens the period of vegetation. A week, even, of advanced maturity to the corn crop, often settles the question of its profit to the farmer, making from one-third to one-half difference in its value. A few days more on the growth of barley, oats or potatoes, will enable them to withstand a far greater degree of drought, and to mature a much better product. We but suggest the subject, not attempting to treat it at the length it deserves, leaving our correspondents experienced in draining, to illustrate and enforce the same.

THE INDIANA FARMER has been removed to Indianapolis, where it is now published by J. N. RAY, Esq. It is well printed and well filled with good matter.

Editorial Correspondence—V.

BALTIMORE COUNTY, MD., May, 1858.

During a day or two spent in the city, I have been indebted to Messrs. S. SANDS of the American Farmer, B. M. RHODES, MARTIN GOLDSBOROUGH and others for attentions. Messrs. B. M. Rhodes & Co., as our readers are aware, are largely engaged in the manufacture of a Superphosphate of Lime which has received high encomiums from many who have examined or actually tried it. Every lot is said to be subjected to analysis before it is offered for sale, while the processes of manufacture are carried on according to a receipt furnished by Dr. Higgins, recently state chemist.

A Good Farmer's Club.

A narrative of the rise and fortunes of a Farmer's Club, of which Mr. GOLDSBOROUGH was a long time at the head, interested me much, and might form the basis of similar institutions elsewhere, with those who have not yet tried them. On the Eastern shore of the state, where he formerly resided, he induced a dozen of his neighbors to unite with him in organizing the club, and they kept it up together for a number of years, finding it throughout productive of considerable mutual advantage, and no little social enjoyment. The thirteen met to dine in succession at each other's houses once a month, the member whose turn it was to receive the others having the privilege of appointing the particular day, if desired, through the county paper. As was very natural on these occasions, they would walk about the farm to see how each was getting on, besides devoting themselves to the discussion of questions of agricultural interest; and after such tours of observation, Mr. G. could not but be struck by the opportunity they offered for good natured but profitable criticism. As he justly remarked, one who does not easily discover his own remissness at home, may prove to have sharper eyes for the short-comings of his neighbors, while at the same time suggestions from them about his management, and from him upon theirs, would be kindly received and often advantageously acted upon. It was consequently, after some hesitation, resolved to appoint a committee whose duty it should be at each meeting to examine more particularly into the system pursued at the farm on which it was held, the condition of the buildings, the fields, the fences, &c., and to draw up a report distributing commendation and blame, where they seemed respectively proper, calling the attention of others to every merit experience enabled the writer to discover, and warning the owner of any disadvantages or dangers which it taught him to expect. These reports were received and discussed, and then as a whole, or paragraph by paragraph, they would be put to vote, thus distinctly expressing the "sense of the meeting" on each point brought up.

How such a feature might add greatly to the attractiveness and value of the meetings, any one can see: those who thought themselves unable to express their views satisfactorily on paper, were by degrees led to make the trial, and when it came their turn, soon found that the difficulty of writing will in a great degree disappear, when a writer has something he wants to say; and the improvement here, and the social intercourse obtained, as well as the results in more practical directions, were of a most satisfactory and quite an important kind. We should add as a hint to any

readers who may be pleased with the idea of a club, made up as this was, of just enough good friends and farmers to form a pleasant monthly dinner party, that it was found necessary to pass a sumptuary by-law limiting the said dinners to one course of plain and substantial dishes, in order that they might not lead to extravagance, and be an unnecessary burden to the housewife of the day.

Vauxhall.

Taking the train for Cockeysville on the 19th, I was kindly met at the station by JOHN MERRYMAN, Esq., now the energetic President of the Maryland State Agricultural Society. Before the cars came to a stop, the evidences began to be multiplied of the one great manufacture to which the Agriculture of the whole region owes its resuscitation and improvement—kilns for the burning of Lime—a fertilizer which seems to have the power of thoroughly rejuvenating a soil, at once rendering it capable of a beneficial rotation, adding to the enriching effects of other manures, and driving out some weeds of most troublesome character. Of the extent to which it has been and is still employed, I shall have more to say hereafter.

We called as we drove along, at the residence of WM. JESSUP, Esq., "Vauxhall," an estate, as we understood, practically and profitably farmed, but where we could not stop long enough for much conversation as to the system employed, or even to glance at the stock upon the place, which, as I had been previously told, included quite a flock of fine Cotswolds. Related to Mr. SANDS of the American Farmer, the results of Mr. J.'s experience have been occasionally contributed to that sterling journal, and we understood that some experiments are now in progress on his fields, an account of which may there be expected. Mr. J. was quite disposed to differ with the views recently expressed on several subjects by some of our correspondents, and it will not be out of place to renew here the invitation I gave him to submit his criticisms to their consideration through the columns of the Country Gentleman. It is only by the discussion of knotty points, that we can hope for the elucidation of the difficulties involved, and practice is no less the test than it must be the source of all theory.

Clynmallira Manor.

After a brief pause at "Hayfields," Mr. Merryman's own residence, we resumed the seat we had occupied behind the horses for a drive of several miles to the extensive estate of HENRY CARROLL, Esq., a gentleman of the old school, if it is pardonable to repeat an often abused, but very expressive phrase, in order that the reader may share with me, if possible, a welcome as courteous and urbane as perhaps we might have expected from his ancestors had we called in the days of Lord Baltimore or George Washington. Clynmallira Manor includes 2,200 acres, of which the Messrs. C., senior and junior, jointly cultivate about one thousand—the remainder being in the hands of tenants. The property has been in the family since 1704, but only farmed for the past 30 years.

There are this year 120 acres in Wheat, including a fine field of 50 acres of Mediterranean wheat—85 of Corn, 55 of Oats, 150 in Meadow, and the remainder in Pasture. There are ten or a dozen acres of a very plump and handsome kind of white wheat, from seed purchased from one of the largest grain growers of

North Carolina—a kind which bids fair to become one of considerable value through the South, although I did not learn that it is yet known by any distinctive name.

The farm buildings on the place are very neat, commodious, and extensive—including a stone barn built in the best style, with slate roof, and plastered throughout in the inside, in order to keep out dampness, vermin, &c. Its dimensions are 47 feet by 97, and there are above large bays for unthrashed grain and hay, and on either side a granary that will contain three or four thousand bushels, while beneath, an airy and comfortable basement is planned to accommodate 52 head of cattle, in a very convenient way for their attendants and themselves—the hay and other feed being distributed to them all at the least possible distance of carriage, while it is calculated to litter them so as to avoid the necessity of frequently cleaning out the floor. The food for the mules and cows is ground in the proportion of one bushel of oats to two of corn and cobs, and one of wheat bran. A bushel of this mixture, stirred up with one and a half of the chaff, either of wheat or oats, and just moistened with water, will answer for the morning or evening meal of half a dozen mules, and when plowing, they also receive a feed of corn in the ear at noon. Chaff is thought to be of much value for feed, and to exert a beneficial medicinal effect in the spring.

At right angles with this barn, there is a range of stone stables 110 feet long and 20 wide, with room above for feed, and Mr. Carroll proposes to erect upon the third side of the square a building 110 by 42, for feeding cattle for the butcher—so planned that the deposits shall be removed by a horse and cart about once a week, and that the stock may be otherwise attended to with the least expenditure of time and labor. The part of the corn-stalk above the ears is used for foddering the cattle in the yards, and the husks are considered equal to hay for feeding, but are not used for the purpose, as they command too high a price in the city, where they find a ready market for filling mattresses, &c.

Besides the buildings mentioned, there is one just outside of the square, open below on one side as shelter for the farm wagons, and above used as a corn-house. An old barn near by is used for storing straw.

The Cotswolds.

The stock on the place includes some valuable horses, (among them a bay stallion of fine promise two years old, and now 15½ hands high,) but that part of it perhaps most thought of and highly prized, is the sheep—a beautiful flock of Cotswolds, to the breeding of which Mr. C. senior has for some years devoted himself with untiring care. Among more recent additions to their number are a buck imported at a cost of \$350 in 1854, another imported for Mr. C. by Col. Ware, costing \$250, and six imported ewes, at an aggregate price of \$832.26, or an average to each of \$138.71. The flock now contains about 40 ewes and 20 bucks, some of the latter of which readers have been already informed through our advertising columns, will now be disposed of—offering a rare opportunity to procure some of the best blood of the breed in the country. Possessing in a high degree the characteristics of their breed—large and well made frames, full and handsome fleeces, expanded ribs, and broad overhanging rumps—the males are of unquestioned value in increasing the size of the ordinary sheep and bringing the mutton to early ma-

turity. They are also hardy, and the quality of the meat, although thought by the critical somewhat coarse and not well intermingled of fat and lean, is not sufficiently objectionable to render it the less marketable on this account. We saw a fine lot of six-weeks lambs, which would already weigh 80 to 90 pounds, while the full grown will reach an average of 250. The ewes will shear in common cases about eight pounds of wool, and the bucks twelve—which sells unwashed for the Boston market, at 20 to 25 cts. per lb.

Winter Barley for Winter Pasture.

MESSRS. EDS.—I wish to obtain information in regard to winter barley as a substitute for rye for grazing and feeding purposes. It is highly recommended by numerous gentlemen who have used it in California, where it is raised extensively for pasture and forage.

How does it compare with rye as grazing for young stock, and for feeding in the grain or in the sheaf, or cut up, i. e., is it equal or superior to rye, quantity and quality considered? (a) What kind of winter barley is best? How much should be sown to the acre, and when? (b) If sown in August, or very early, will it joint before winter? Will it stand the winter equal to wheat or rye? Will it bear grazing equal to either of these, and how long or late should it be grazed and make a good crop? (c) What is the best mode of feeding it? (d) I should not have troubled you on this subject, but I have never seen any thing in the Country Gentleman, or any other paper, that gives the above information. JOHN H. ESTILL. *Glasgow, Missouri.*

Winter barley is little grown in this section, and then for the grain and not for winter grazing. So we must leave a portion of the above inquiries for our Western readers to answer, availing ourselves of the information furnished by a Southern Indiana farmer, (Patent Office Report, 1853,) to throw some light on the subject. From what we know of the two grains, we should think barley would compare favorably with rye in every respect—yield more bushels of grain, and having a broader leaf and greater amount of foliage, furnish more pasture. The grain is equally nutritious, weight for weight with rye, and the dry straw is much better liked by most animals.

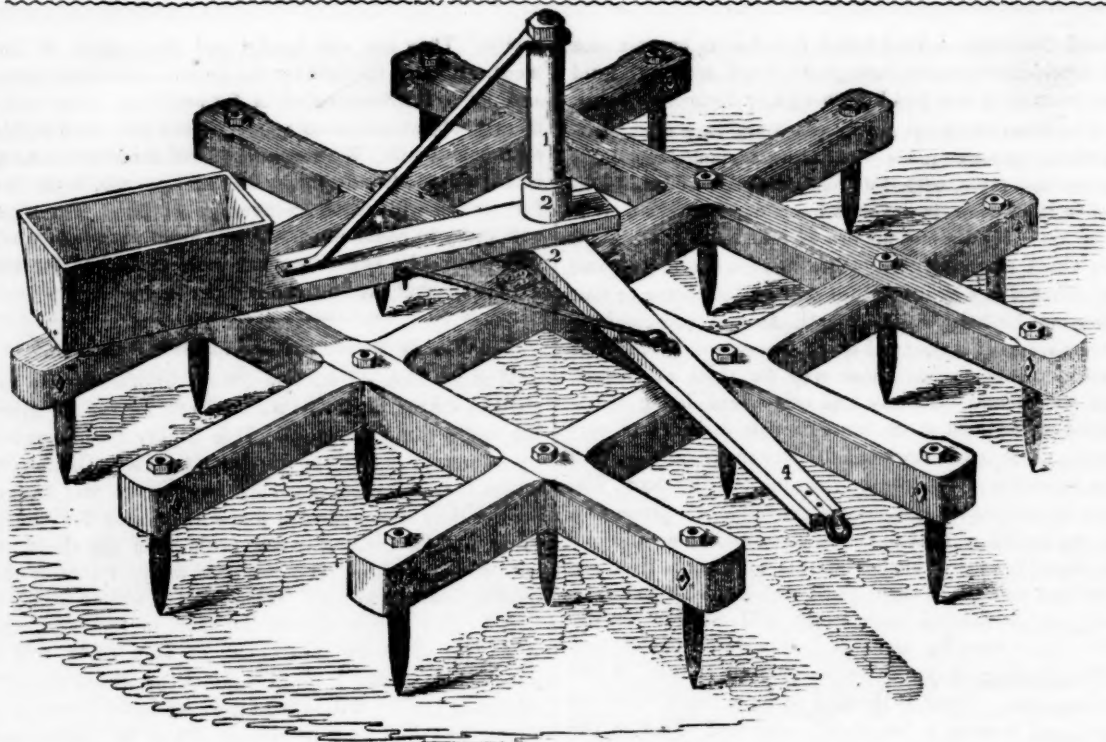
(a) "The green grain offers an excellent pasture during winter, especially for colts and calves, as they injure the ground less by tramping than old stock."

(b) "From one to one and a half bushels per acre, is sown the last of August or first of September, among the standing corn, and covered with a light plow or cultivator. Some farmers, when the corn will admit, plow it one way and cross with the cultivator."

(c) "It is better to manage the feeding (on account of tramping,) so that the stocks will not be on the lands after the winter frost is out of the ground."

(d) "Barley ripens with us (in Indiana) the last of June. The straw is saved for winter feeding of cattle, and answers well for horses when cut and fed with the grain crushed into coarse meal. Barley is also valuable for hogs, ground and soured in swill, or soaked in water until fully swollen, before feeding."

There is no economy like the economy of doing every thing thoroughly. More profit can be realized from one acre well manured and thoroughly cultivated, than from two but half prepared for seeding.



Buckeye Rotating Harrow.

The above is a representation of the "Buckeye Rotating Harrow," recently patented by Wm. De Witt and O. D. Barrett of Cleveland, O. The toothed frame is made of suitable sized timber, halved together, and fastened by the teeth, which have shoulders that come against the lower side of the timbers and nuts on the upper side. The center-piece, 1, is made fast to the toothed frame by means of the cast plate, 3. The thimble, 2, has a flange on its lower end, by which it is firmly bolted to the draft-bar, 4. The weighted arm is held on either side by the draft-bar, and at right angles to it by means of a hook, as represented. A weight of twenty-five or thirty pounds is placed in the box on the weighted arm. This weight causes the teeth under it to sink deeper into the ground than the rest. As the Harrow is drawn forward, they meet with more resistance, and consequently cause it to rotate horizontally, pulverizing the ground completely, requiring less force to draw it than it would did it not rotate.

How to Obtain Water.

MESSRS. EDITORS—We have succeeded in obtaining a supply of pure running water by means of a well and syphon, (as recommended by your correspondent B. C. G., on page 80 of the current vol. Co. Gent.,) and believing that many of your subscribers may be so situated as to obtain a supply in the same way, thus saving a vast amount of labor, I wish to say a few words on the subject. We have had ours in operation about a year, and are so well pleased with it that we would urge all those who intend to dig wells, to first look around, and see if there is not some spot within a convenient distance, where they can find water by digging on higher ground than where they wish to use it. If they succeed in doing this, all they will have to do is to put in a pipe and exhaust the air which it contains, by means of an air pump*—(or what would answer just as well, have the pipe filled with water previous to

The advantages the patentees claim for this Harrow are as follows:

1st. It will do twice as much as the common Harrow in pulverizing the soil, without any extra labor for the team.

2d. It is the strongest Harrow built, and does not cost as much as the common jointed Harrow.

3d. It is adapted to all kinds of soil, and can be operated like the common Harrow, by taking off the weight. This is of advantage only in reference to newly turned up sod, requiring to be harrowed with the furrows.

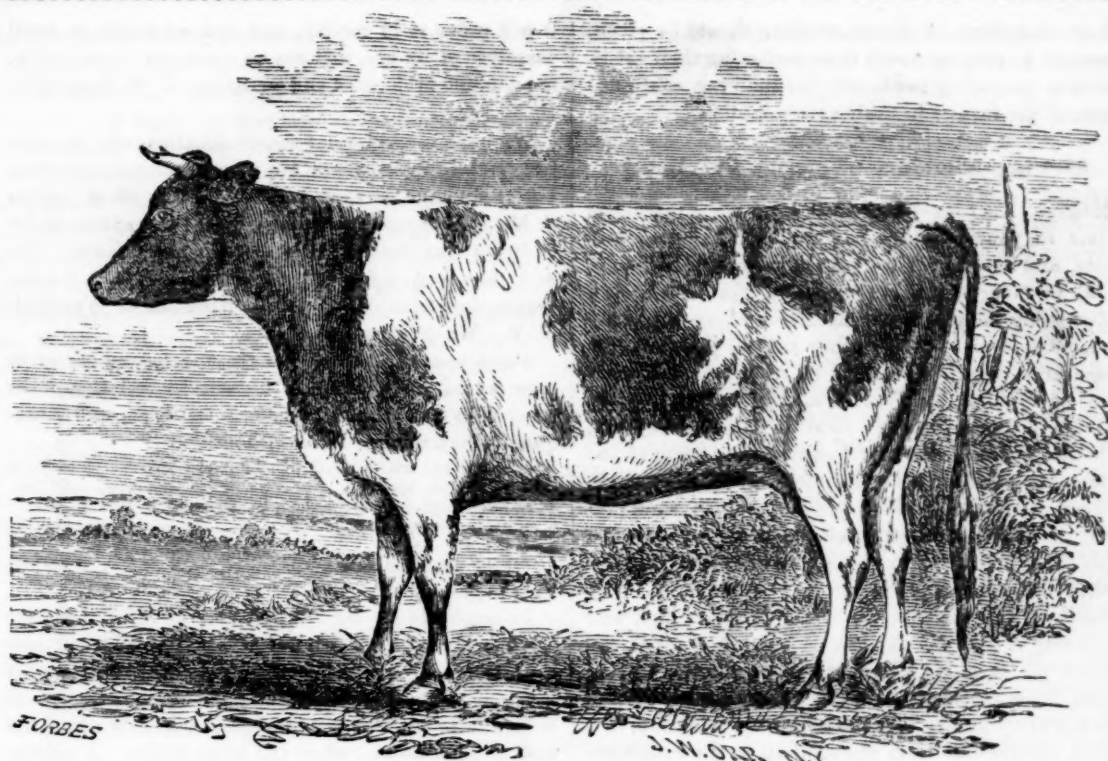
4th. By the rotating motion, the teeth are made to move in every conceivable direction. Consequently, they sharpen themselves.

5th. This Harrow leaves the ground smooth and even, as it is impossible to clog it; consequently stones, roots, vines, or other things, cannot be dragged along by it, to leave the ground in furrows, as it frequently is by the common Harrow. For further information address Robinson & Co., 21 Bank street, Cleveland, Ohio.

putting it down)—and they will soon have the satisfaction of seeing the water running, provided there is no defect in the pipe. The theory of its action is simple; the pressure of the air on the water in both legs is equal, but as one leg is longer than the other, it consequently contains a longer column of water, which overcomes the resistance of the air, and falls towards the ground, leaving a vacuum which is immediately filled by the pressure of the air on the water in the shorter leg, thus keeping up a continuous flow of water. J. E. BAYNE. Franklin, Delaware Co., N. Y.

* It is best to keep a pump always at hand, as the water will no doubt stop occasionally in consequence of air getting into the pipe. We made one which answers every purpose out of a wooden tube, (made by boring through a block of wood,) and two leather valves opening upwards, one at the bottom, the other fast to a stick used as a piston.

A treadle attached to your grindstone will enable your man to grind his own knife, axe, scythe, or other implement. Attend to it now.



Jersey Cow, Faith.

Calved 1850.—Imported August, 1854, from the Island of Jersey, by J. A. Taintor, for J. Howard McHenry.

Culture of Growing Crops.

The two great objects in the cultivation of growing crops, are

1. The destruction of weeds, or the prevention of all growth but that of the crop itself.
2. Keeping the soil in the most favorable condition for the support of plants.

Weeds are hurtful in various ways. In their early growth they take little but water from the soil, but that may be needed by the growing crop. Soon they demand more precious elements, using up the stores of plant food the soil may contain. A thrifty weed takes as much nutriment as a thrifty corn plant, and both cannot at the same time employ the same elements. When it is remembered that nothing grows without feeding, the importance of feeding nothing worthless will at once be seen.

Weeds are injurious in crowding the crop, depriving it of needed exposure to the light and air. Imperfect growth is always the result of too great closeness of the plants, whether caused by weeds or the crop itself. The plants shoot up slender and weak in their struggle for light and air, and the product cannot be what it would under more favorable circumstances.

It is important, therefore, to prevent the growth of weeds, as far as may be, by hindering their germination or destroying them as soon as they appear. In the culture of all "hoed crops" it is not necessary to wait for weeds to get up above ground before commencing the war against them. At first they have but a single root, which can be broken very easily, and to the death of the plant. It is not much labor to hoe corn or roots thus early, but neglect it, and it will require ten times the digging, picking and pulling at a later day.

The implements of culture—the plow, horse-hoe, harrow, and so on, will do much of this work. Straight rows, seasonable labor, and constant vigilance will make light work of what otherwise will seem an interminable piece of labor. After a few weeks the crop will so "get the start" of the weeds, as to hinder their growth, and then we may "lay by" our soil-stirrers and weed cutters, and wait for the harvest without fear of more than one crop, and that the one we have planted or sown.

2. That the soil be kept in the most favorable condition, as to its mechanical relations, for the growth of plants is equally important. The soil, if not naturally mellow, must be made so, that the roots may be able to penetrate the same—and that the nutriment it contains may be put, by air and moisture, in a state to be taken up by the roots, which are the mouths of plants.

All heavy soils are benefitted in several ways by frequent cultivation. One has already been stated in the preceding paragraph. Another benefit is the breaking up of the crust which forms as the soil dries after rains, preventing the ascent of moisture from beneath, or its absorption from the atmosphere. A deep and mellow soil will bear far more rain without injury than a shallow and hard one. It will also much better withstand the effects of dry weather, and it is often proved that culture goes as far as manure in perfecting the crop.

This cultivation, as in the case of destroying weeds, should be most frequent and thorough while the crop is in its first stages. As its growth advances, the roots of the plants extend and will be injured by any very extensive stirring of the soil. Nor will it be as needful as at first, from the fact that the permeating roots tend to keep the soil mellow, as also does the shade of

the growing crop. Sufficient working should be given, however, to prevent weeds from perfecting their seeds, and thus preparing needlessly for the ever continued labors of the farmer in their extermination.

Mowing Machines—Time to Cut Hay.

MESSRS. EDITORS—There has been some discussion of late in your valuable papers, about mowing machines, and extremes have been gone into on both sides—both in favor of the machine and against it. Now in discussing the merits or demerits of these labor-saving machines, or upon any other subject pertaining to agricultural improvement, or in disapproval of what seems of doubtful utility, it is always best to keep as near the mark as possible; to state facts as they are, without embellishment or exaggeration. Some of the statements, calculations and figures in relation to these mowers, tend to mislead that portion of the farming interest that has had no experience with them. My own experience is limited to the past two years, but by careful and as accurate a test as possible in keeping account of the expense attending the machine, and comparing it with the expense of hand mowing at the present prices of efficient day laborers in the haying season, I am satisfied there is a saving to any farmer who has forty to fifty acres to mow over annually, of a smooth surface free from obstructions to the running of the machine. For a less amount than forty acres, and that generally producing heavy grass, I do not believe it can be profitable for any one to purchase unless he can club with his neighbors; and there are serious inconveniences in this; more than one might want to use it at a time; different teams, different drivers, &c., increasing the liability to accidents and the expense of repairs. The greater the quantity of grass to cut the more desirable is the machine, and the greater the saving. One of the greatest items in saving is in cutting the grass at the proper time, and saving in the quality of the hay; for I do not believe, with one of your correspondents, that the hay is more nutritious by standing until the seed is matured and nearly ready to drop before it is cut. Most of our cultivated grasses should be cut when in blossom, or just as they are passing out of that stage, even if it does take more sun and a little extra labor to dry them.

The economy of the mower I predicate upon the present price of labor, which here, is \$1.25 to \$1.50 per day, and board—25 to 50 per cent. higher than a few years ago; and even at this advance, the labor we get now is not as good now by 20 per cent. as formerly. Could I obtain as good labor at one dollar per day as I did ten years ago, I should never have thought of resorting to a horse mower as a matter of economy. But the times have changed, and are continually changing in this country, and we farmers must shape our course to keep pace with these changes, whether they are for the better or the worse, or we shall get behind the times and become old fogies in the true sense of the word. Old fogyism, to a proper extent, I like; enough of it to curb and hold back "Young America," is necessary and desirable in our day and generation; but we cannot follow the beaten track of our fathers. Improvement is the watch-word in farming as well as other things; and wherever and whenever an agricultural implement presents itself as a labor-saving machine, we have only to satisfy ourselves of the fact that

it will prove so in reality, and then we ought to avail ourselves of its use, and not be controlled by prejudice, or an undue preference and credulity. J. W. COLBURN. *Springfield, Vt.*

We have several other communications on this subject, mainly in answer to Mr. CLIZBE's communication, but as we have already published six or seven replies to Mr. C., our correspondents will we trust excuse us for omitting any further estimates on this matter. We add, however, a fact or two of interest from a communication from Mr. D. A. A. NICHOLS of Westfield, N. Y. Mr. N. says:

Three years ago I had ten acres of lodged clover to mow, and I hired one-half mowed by hand, and the other with a machine. I had no machine, and consequently had to hire, or do without.

| | |
|--|---------|
| Five acres cut with a scythe in 6 days by two men—12 days, | |
| at \$1.25 and board, | \$15.00 |
| Five acres cut with a machine in a half day, at 62½ | |
| cents per acre, | 3.12½ |

Difference, \$11.87½

This is just exactly what I had to pay.

In regard to having so much help as Mr. C. seems to think is necessary, I will say that myself and one man usually cut 50 acres of grass with no other help than a machine and a horse-rake, and get the hay as fast as it gets fit to cut. A good machine will mow when the dew is on as well as when the grass is dry. I usually hitch on the team after breakfast, and mow until the dew is off—then rake up and get in what was mowed the day previous. We cut our hay soon after the blossom falls. Clover we cock as soon as wilted, letting it stand about a week, in order to save the leaves. I am not an agent for any machine, and therefore can say what I think about machines. We use the *Ketchum* machine, as there are no others that we have seen that will not clog in lodged clover and wet grass. That machine is not liable to get out of repair. One of my neighbors has one with which he has cut over 500 acres of grass, and has paid out just \$1.00 for repairs.

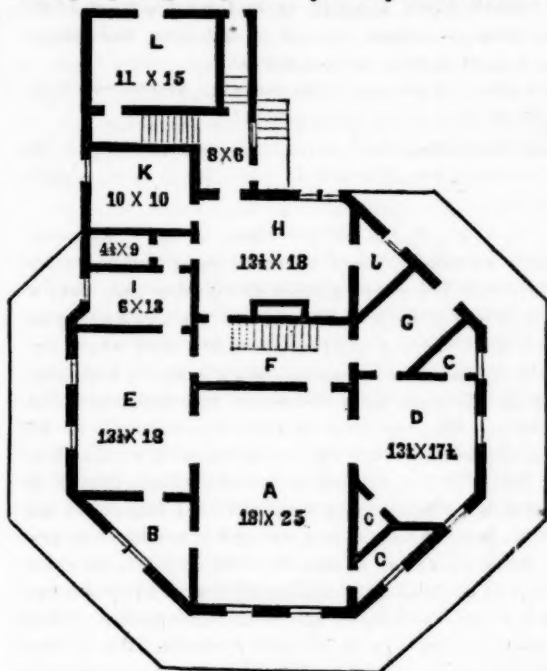
How to Extirpate the Apple-Tree Worm from Orchards.

A Dutchman in our neighborhood does this most effectually. He provides himself with a basket, ladder and leather gloves. He then ascends the tree, taking advantage of the time when the worms are all in. He moves about among the branches, rolling up by hand each nest with its contents, and deposits it in his basket. In a few minutes the work is accomplished, when he descends with his freight of worm nests. Passing through an orchard in this way, he does up the business for years to come. Some orchards in our neighborhood, which had for several years in succession been denuded of foliage, have been almost entirely relieved by one thorough cleaning out in this manner. One man can pass through a good sized orchard in a day, and the benefits conferred will bear no comparison with the trifling expense incurred.

One of the most prolific sources of the apple tree worm, is the existence of a few black cherry trees scattered about the farm. The worm prefers this tree even to the apple. These trees serve as nurseries for worms, where millions are annually bred without molestation. Every such tree growing along the fences about the farm, should be cut down without reserve. W. H. S. *Sandlake.*

Mr Thomas' Design for an Octagon House.

MESSRS. EDITORS—Perceiving from the inquiry of your correspondent, Mr. JOHN TANNER, in the Country Gentleman of April 15, that octagon dwelling houses are attracting some interest in the public mind, I herewith forward you a sketch of what I consider an improvement in the arrangement of the first floor of Mr. MANN's octagon house, which appeared in the same paper on the 7th Jan. last, whereby, without altering the locality or capability of any of the rooms as arranged by him, superior facility of access will be gained to any part of the house, without passing through or making a passage way or entry of any of the rooms.

**EXPLANATION.**

A. Parlor—B. Library—C. Closets—D. Dining-room—E. Nursery—F. Hall and stairs—G. Entrance Hall—H. Kitchen—I. Bath-room—J. Pantry—K. Store-room—L. Ice-house.

In the accompanying first floor plan, you will perceive that I have removed the front entrance hall, and placed it so that it leads directly into the staircase hall, from which free access can be had to any part of the house without entering any other room before the one you require to be in. In making this suggestion in his arrangement, I trust Mr. Mann will pardon me, and also hope that he will agree with me that it is an improvement. T. THOMAS, C. E. *Milwaukee.*

To Preserve Fresh Fruit, &c., in Cans.

MESSRS. LUTHER TUCKER & SON—I observed in the last No. of the Co. GENT., you request information as to the best method of preserving fresh fruit, &c., in cans, and if you think the following worthy a place in your columns, it is at your service. It is reliable, for I have tested it some years, and find it every way superior to the old method of putting the fruit in the cans before heating, and then immersing in boiling water, &c. I have preserved in this way, tomatoes, peaches, cherries, pears, quinces, apples, and pumpkin for pies, and find all to keep for two years as fresh as when put up.

Select good, sound, ripe fruit, and put it up as speedily as possible after it is gathered. Peaches, pears,

sweet pumpkin for pies, tomatoes, and berries of all kinds, can be preserved fresh for years, if the following directions are observed:—

Prepare the fruit by paring, and stoning, or coring where necessary, and put it over a moderate fire in a brass or porcelain kettle, (the latter is best, as it does not discolor fruit,) with sugar enough to make sufficient syrup to fill all the cavities in the can when the fruit is in. Have ready your cans, and as soon as the mass is thoroughly heated through, skim out the fruit and put it in the cans quite hot, and pack it as tight as practicable. Then pour in syrup till it is as full as it can be, and permit the covering to be soldered on.

I use round tin cans holding about a quart each, with a round aperture in the top from two to three inches in diameter. I have circular pieces of tin cut a little larger than the aperture in the cans, with a small hole punched in the center of each piece. As soon as the can is filled, solder this piece of tin over the aperture, then a drop of solder over the little hole in the center, and the thing is done. I think the old-fashioned tin cans, soldered as I have described, the most reliable—though it is, perhaps, a little more trouble to use them than some of the self-sealing cans, as they are called. The object is to have the article preserved, thoroughly heated through, and to fill the cans full, or as nearly so as possible; and if these two requisites are observed, and the can then sealed, I think the fruit will keep as long as the can remains perfectly air-tight. It is necessary, sometimes, when fruit is not sufficiently juicy to form syrup enough to fill the cans, to add a little water. Tomatoes need no sugar nor water. It is very convenient in filling, to have a very wide-mouthed funnel that just fits the aperture in the tops of the cans; and it is best not to use an iron ladle or skimmer to stir or dip out the fruit, as it will discolor peaches and some other fruits. G. W. C. *Delaware.*

Ashes and Hen Manure.

MESSRS. EDITORS—Recently I had occasion for using compost, and decided on trying the experiment of a compound of wood ashes and hen manure. Knowing that either in itself was considered an excellent fertilizer, I thought a combination might add to their value. But I soon discovered my error, for the instant the ashes came in contact with the manure, the ammonia was driven off so rapidly as to almost choke me. I am satisfied with Mr. BARTLETT, in Co. Gent. May 13, and Mr. CHILDS, June 10, that the practice is unwise and improper, although there are those here who profess to be posted in such matters who maintain an opposite opinion. W. L. JAMES. *Westchester, Pa.*

To Preserve Vines from Bugs.

MESSRS. EDITORS—After reading the many remedies to prevent bugs from destroying vines, in the last no. of your paper, I would like to mention the simple remedy I tried last season with great success. It is simply applying equal parts of common red pepper (powdered of course,) and plaster to the vines, when the dew is on. This remedy is so simple and reasonable that I think your readers will be induced to try it, and thereby be convinced of its efficacy. C. D. G. *Pine Hill, N. Y.*

The Yates Co. Ag. Society are to hold their next Fair at Penn-Yan, Sept. 23, 24.

Editorial Correspondence—VI.

BALTIMORE COUNTY, Md., May, 1858.

Loveton.

In returning from Mr. Carroll's, we called at the extensive Dairy farm of THOMAS LOVE, Esq.—a gentleman from whose close attention to the operations of his establishment and long experience in conducting them, much might be learnt by others, while they have at the same time enabled him to replace a fortune impaired by reverses in other pursuits a number of years ago. He farms 530 acres, of which nearly one half is permanently in grass. During the thirty years he has had the place, the main object with him has been to select good cattle for dairy purposes, and raise only those which would give the most and best milk; and, during the last sixteen, he has made the sale of milk and cream, especially the latter, the chief object, instead of the manufacture of butter. He has now 60 cows, which is about his usual number of milking animals, and 20 yearlings. He generally has some fifty calves which he wants to dispose of as young as possible, during the year—for it is but a poor market for one's milk to spend it in fattening veal for the butcher.

In reply to some inquiries as to the method employed in seeding down his Grass lands, and maintaining their yield as pastures, Mr. L. gave me a brief account of his rotation, which I understand to be as follows: Beginning with an old meadow, he would plow it in the fall for a corn crop the next season, applying and harrowing in stable manure in spring. The land is laid off three feet and a half each way by the plow, or "checkered," as it is often called, for the corn, and this is thoroughly cultivated during its growth as frequently as possible, and never less than four times. If strong enough to bear a spring crop, the field is put in oats or barley the next year, and, after harvest, manured freely with stable manure, or Mr. L. had occasionally tried De Burg or some other superphosphate of lime, or Peruvian guano; after the soil is thoroughly pulverized, and not later than October 1st, a bushel and a half of wheat is drilled and a peck of timothy seed sown per acre, and succeeded by the roller, in order to render the ground still finer. Through the winter thin spots are top-dressed with stable manure to bring them forward, and about the 1st of April six to eight quarts of clover are sown to the acre. If rye has been put in, instead of wheat as above stated, Mr. L. would sow with the clover a bushel of plaster, but on wheat he thought its effect was not beneficial—apparently putting off the period of its maturity, and rendering it more liable to rust.

Such a grass field will, on his farm, continue to produce well, either if mown or pastured, for eight or ten years, and it may be rendered perpetual by a dressing of manure every third season thereafter. Plaster can also be applied at discretion, which will probably be of particular service to the clover—a very desirable element in hay or pasturage for milking animals. Mr. Love has some large milkers, and the average yield for them all would probably equal, if not excel, most establishments of less extent, in which it might be expected that each animal would receive a correspondingly greater amount of care. From an inspection kindly afforded me of the sales accounts of milk and cream, I inferred that the average returns would be in the neighborhood of \$100 per cow per annum for the

60 head, and perhaps more rather than less; and, if I am not mistaken, at some seasons of the year a portion is converted into butter, which would add somewhat to the above figures.

The furnaces in the vicinity give considerable occupation to teams of mules and horses, and it seems to be found more profitable to hire their labor of farmers owning them, than for the furnace proprietors to invest so much capital as would be required in the possession of draft animals enough to do all their work. Mr. Love had 18 head of mules constantly employed in teaming for the furnaces—a kind of labor in which they apparently give better satisfaction than horses. A memorandum I made as to the price received for this labor, I cannot find—it is sufficient, however, to pay a good interest on the cost of the animals, and a good price for the food they consume, and is considered quite an item in the farm returns.

Having dined at Clynmalira Manor, and taken tea at Loveton, we returned in time for a good night's rest, to

Hayfields,

Where we spent most of the next day, riding over the premises in the morning with Mr. MERRYMAN and his little son, (mounted on as large a horse, and enjoying the crops and the views as well as either of us.)

Mr. M. occupies 108 acres with wheat, 80 with corn, and 30 with oats, while 165 are in meadow, and 125 in pasture. His hay crop is probably upwards of 200 tons, and he finds it better to put up a barn in each of his fields for the storage either of hay or grain, than to haul the whole to one range of buildings. He has now no less than eight hay and grain houses in as many fields—varying in size from 30 by 20, to 75 by 33 feet, and containing from 20 to 50 tons. They are well constructed frame buildings, with tight roofs, but only boarded on the sides sufficiently to protect the timbers and braces of the frame. Among the advantages gained by this system, are the increased rapidity with which the crop can be got in when the weather is threatening, and the greatly diminished danger from fire. It is also found more economical and serviceable than stacking. The buildings are erected near the roads, instead of in the middle of the fields, so that the contents are reached without hauling over a growing crop, and can be taken thence to market as easily as if stored on any other part of the premises, while the increased labor of re handling the grain when it comes to be threshed, is not nearly as burdensome as it would be to draw it a greater distance in the hurry of the harvest.

Mr. Merryman's views of the importance of protecting his implements and vehicles from the weather, lead him to provide abundant means for sheltering them. He has an extensive farmery in addition to the scattered houses of which we have spoken, including wagon and implement houses, stables and corn lofts, &c., &c. Occupying the place, as he did for a number of years, under a lease rendering it necessary for him to draw heavily upon its resources to meet the obligations incurred, he could not expend as much as he would have liked on mere embellishments, but having latterly been free from any restraint of the kind, he has already inaugurated or had in contemplation many improvements. The land has all been thoroughly limed, and was considered while in the occupancy of

his late uncle, Col. N. M. BOSLEY, one of the best cultivated farms in the State—receiving in 1824 a silver tankard as such from the Society for the Promotion of Agriculture. And an interesting incident in relation to this tankard is, that during the year in which it was awarded, LAFAYETTE made his great visit to this country, and chancing to be an invited guest of the Society, it was placed in his hands for presentation to Col. BOSLEY, in whose eyes, as well as those of his descendants, it thus acquired additional consideration—linking with its own intrinsic value as a testimonial of meritorious agricultural efforts, his memory and name, on whom Americans will ever look as one of the brightest characters our Revolution brought to light.

As Mr. M. farmed for some time under that severest test of one's success, formed by a comparison between the two sides of the cash account, the stock required for his purposes were not merely breeding animals of high pedigree, nor, on the other hand, did he, by any means, as too many in similar circumstances are in the habit of doing, neglect the improvement of his cattle. Accordingly we find him at the United States Ag. Society's Philadelphia Show, in 1856, taking the \$50 prize for the best herd of grade milk cows, and several others for native and grade animals, while at the same time he succeeded as well in other classes—taking first prizes, (and this is indicative of the means employed to improve his stock,) on both the Ayrshire bulls he exhibited, "Highlander" and "Mar." And we find by turning to the report of the Devon Committee, that they commend a bull shown by him in that department. With a view to devoting some attention to breeding pure Herefords, and to trying a cross of their blood for the production of milk, working oxen, &c., he had then recently purchased several head from Messrs. A & H. Bowen of this State, and here, too, his name appears prominently on the premium list—the bull "Catalpa," and heifers "Lilac" and "Black Beauty," all receiving awards.

That crosses produced by such bulls as Mr. M. has owned, upon cows already tinged, in some degree, with improved blood, should prove valuable stock for farm and dairy purposes, would not be at all surprising. And among the best milking cows we saw at Mr. Love's, were two, then yielding about five gallons a day, rented by him from Mr. Merryman, at \$3 per month for six months. A number of Highlander's calves, some from cows partly Short-Horn, have also proved very excellent milkers.

Of sheep, Mr. M. has 45 breeding ewes and 39 lambs of Cotswold, with a little South-Down admixture—making a favorite cross for mutton. His pigs are black and white, partly China and partly Chester,—the former a variety which consumes little and inclines to flesh, and the latter giving it larger frame and rendering it a better feeder. They received a prize at the last show of the State Society.

A hay press, procured six or eight years ago from this State, and not found to work very well, was modified and improved by Mr. M., and since then has been operated most satisfactorily. He now uses it mainly in baling rye straw and corn husks. It was successful at a trial held by the State Society, in 1852 I think, when in competition with other presses, and a silver pitcher was awarded for it to Mr. Merryman.

The soil I have seen has been of two kinds, a lighter

limestone, and quite a heavy red clay rotten stone soil. The former makes very good corn and grass land when properly treated, and the latter, if rich enough, yields good wheat crops. This year the wheat has, by the way, been somewhat injured by that old destroyer the Hessian fly; in one field, in different parts of which Mediterranean, a beardless kind of Mediterranean, and white wheat were sown, the last two varieties were both injured while the first escaped almost entirely.

We called at one of the two large flouring mills, owned and carried on by our friend THOMAS H. MATTHEWS, which we found most completely fitted out, and I was pleased to learn that the flour made by him has a very high reputation, especially with shippers, as a superior and standard article. Time allowed us but a brief call at Mr. M.'s residence, where he cultivates quite a farm in addition to other engagements. He was suffering from the effects of a sprain, but we did not need his aid in discovering, as we rode to and from the house, the marks of neat and skillful farming, and I only regretted that we could not remain long enough to get some particulars of its management. The COUNTRY GENTLEMAN should acknowledge its obligation to Mr. MATTHEWS for his kind introduction of it to many of its present large and constantly increasing list of readers in Baltimore County.

Messrs. Carroll, senior and junior, Mr. Love and Dr. Charles McLane, a farmer as well as a physician, joined us at dinner. Readers in Western New-York may be reminded that it was a relative of Mr. Carroll's who together with Mr. Fitzhugh, also a Marylander, being struck when on a journey, about the beginning of this century, to Niagara Falls, with the manifest advantages offered for a city by the falls of the Genesee, took up a tract there of four or five hundred acres, and, on their return, offered a share in the property to a neighbor and friend, Col. Rochester, on condition of his improving it. Col. R. accepted the offer, and the result of that trip is the city which now bears his name.

TO PREVENT TURKEYS STRAYING FROM HOME.—It was stated in conversation that turkeys will not leave the yard in which they are put if a *strip of red flannel is tied around the wing*, long enough to trail on the ground. The receipt is simple and easily tried, and if effective, would prove of great benefit in removing a source of much loss and annoyance to the turkey breeder. The vanity of the fowl is probably affected by this means, as he would not wish to run the risk of seeing strangers with such a drag upon his dignity.

TARRING SEEDS TO COVER THEM WITH LIME, &c.—Mr. Carroll has long been in the habit of coating his seeds with lime or plaster, as the case may be, by the aid of tar diluted with warm water. This was the mode I described in giving an account last year of Major Dickinson's farming, and Mr. C. thought well of the results obtained.

The Wisdom which ordered all, has varied the constituent elements of several grains according to the wants which they supply in the different latitudes where they are cultivated. Thus Indian Corn, which at its northern limit abounds largely in oil and sugar, especially needed there to sustain the animal heat of its consumers, becomes near the tropics almost wholly composed of starch, and suited to the demands of the constitution for lighter nutriment.

How to Use Horn Piths Oyster Shells and Bones.

MESSRS. EDITORS—I have had some experience in reducing horn piths to a size suitable for permanently manuring grapevines, gooseberries, currants, the quince bottoms of dwarf pears, asparagus, and other multiradix plants. I hold the pith in one hand on a block of convenient height, and with a sharp axe or pretty heavy hatchet in the other hand, I cut the pith *transversely* into pieces one-fourth or one-half of an inch thick. I can easily make one bushel of such pieces per hour. I find the above mode of reducing the piths much easier and quicker than that by beating them on a stone or an anvil with the poll of an axe or with the broad face of a sledge. The porosity of the horn piths renders the fertilizing matter of the piths, when cut into thin disks *transversely*, about as easily available by the feeding roots of plants as it would be if the piths were ground into pieces as small as peas.

Oyster shells, reduced to powder and to small thin pieces from the size of a three-cent piece to that of a twenty-five cent piece, are an invaluable manure for grapevines, and especially for asparagus, and many other plants. They are easily reduced to a suitable size by pounding them on the surface of a stone on an anvil with a hammer as heavy as a blacksmith's hand hammer.

The sooner both bones and shells are reduced and covered with earth, the more valuable they are, for their decaying organic and soluble matter is absorbed by the earth, and retained by it until it is used by the roots of plants. If the oyster shells are converted into lime by burning, they are much less useful in most cases for fertilizing the earth than they are previously to being burned.

To reduce bones, where there is no bone mill, let a notch, two inches in width and four in depth, with perpendicular sides, be cut into a heavy block of some kind of hard, well seasoned wood—the notch should be wider at one end than at the other, to facilitate the clearing of the notch of broken bones. Grind any worn-out thick-bladed axe to an edge similar to a blacksmith's cold chisel, lay the bone on the notch, and strike it rather violently with the axe thus prepared, and the bone will be rapidly broken into pieces. The heads of the bones, from their porous structure, are more difficult to be reduced than the middle parts. The breaking notch can be greatly improved by inserting a piece of a bar of iron of suitable length (from 12 to 18 inches,) and from 3 to 4 inches wide, one-half or three-quarters of an inch thick, into each side of the notch, which will make a more solid and unyielding support for the bone at the points on which it rests, and consequently the blow will be more efficient in breaking it. Bones, piths and shells, broken by these slow processes, will amply repay the cultivator, especially for grapevines, asparagus, etc., if they cost nothing except the hauling. Piths are rendered more easy to be cut by lying in the damp ground during the space of a week or more. To immerse them in water for several days will soften them. SENEX.

RAPID INCREASE.—C. P. Ward of East Poultney, Vt., states, that he has a breeding sow which has produced 86 pigs at five litters as follows:—April 8, 1856, 17; September 4, 15; April 4, 1857, 16; August 22, 16; April 16, 1858, 22; 64 of these 86 within the short term of 15 months and 16 days.

Best Food for Ewes.

A venerable farmer of our acquaintance of much experience in sheep husbandry, in reply to the question, "What is the best food for breeding ewes?" says No grain I have ever fed to ewes has been so available in producing a flow of milk as good shorts from wheat. They induce no febrile action, are nutritious, and seem to exert a specific influence in producing milk. One bushel to a flock of thirty, fed twice a day, say every morning and evening, affording about one pound per day, I have found sufficient, and to produce satisfactory results. Corn he regarded as injurious, so far as milk was concerned, and dangerous if fed in any quantity.

Cure for Garget in Cows.

EDS. CO. GENT.—Having become a subscriber to your valuable paper through the Chester County Agricultural Society, and having received some valuable information from it, I thought I would give you a preventive and cure for the garget in cows.

I have had experience in a large dairy for seven years, and never found any thing that would effect as speedy a cure as this receipt which I am going to write.

In giving your stock salt, mix therewith two pounds of saltpetre per bushel, and the cows will never be troubled with the garget.

If you have neglected this precautionary measure, and any of your animals are attacked as they very possibly may be, mix an ounce of saltpetre with some meal, making the whole into a soft dough, and administer it at once.

In inveterate cases the dose might require repeating, but in ordinary attacks one will be sufficient, and the restoration of milk will be effected in twelve or fifteen hours at the farthest.

This remedy never produces swelling, nausea, or other unpleasant symptoms, and may be administered with the assurance of success. C. H. INGRAM.

Cure for Heaves in Horses.

EDS. CO. GENT.—I have great pleasure in stating that your prescription of *sour milk*, has proved an effectual cure for my broken-winded horse. I do not know that it is a certain cure for this equine ill, but it has cured my horse. Did you ever hear that in certain mountain districts of Virginia and North Carolina, where the men are the hardiest and stoutest of any in the Union, milk is never used as human food until it has become sour? J. C. S. Cleves, O.

OSAGE ORANGE HEDGE.—I have cut my two years old Osage close to the ground this year, and now it is sprouting out of the little stump root as thick as peas. My older hedge, which I made by experiments, is an awkward looking fence compared with what it ought to be, yet it has answered the purpose of a fence since last August, protecting by the roadside against horses, cattle and pigs, and having stood these former extreme cold winters by killing down only a foot or two of the top, without in the least injuring it for a fence. Farmers plant the Osage hedge, and then take care of it! It will no more make a fence without care, than your corn will make a crop without care. S. FOSTER. Muscatine, Iowa.

Operations of Ag. Division U. S. Patent Office.

The Mustang Grape.

Mr. J. ELIOT of Corsicana, Navarro county, Texas, says: "The Mustang is probably the most prolific grape in the world. I have seen enough on a single vine to load a wagon. The branches from a single root sometimes spread over twenty yards in every direction, and are filled with large bunches of this dark red grape, which is about the size of the common cherry. Its expressed juice is of a deep red color. I have no doubt that it would improve under cultivation, and become an extraordinary wine-producing grape. It remains on the vine about six weeks after maturing, and thus ample time is allowed for gathering. It ripens in August. It grows wild here, and is much relished."

Wine Culture in the West.

Professor G. C. SWALLOW, State Geologist of Missouri, says: "The extensive cultivation of the grape is a matter of the first importance to the country; and there seems to be no doubt that it can be demonstrated to the satisfaction of all intelligent vine-dressers, that there are at least 20,000,000 acres of land in Missouri, Arkansas, Kentucky and Tennessee, on which the vine will succeed as well as in France and Germany."

Mammoth Pears.

Mr. GEO. W. WALLING of Portland, Multnomah Co., Oregon Territory, on the 10th of November, 1857, forwarded to this office a remarkable pear, which, however, was delayed in its transit, for two or three months, in California, and was consequently in a state of decay when received. Its larger circumference was twenty-one inches; zone, eighteen inches; weight, four pounds. Eleven pears from the same tree weighed 34 pounds, averaging 3 1-11th pounds each. Mr. Walling states, as to the origin of this tree, that "the scion was taken from what was supposed to be a tree of the Pound, or English Bell variety, and grafted on a thorn bush indigenous to the country, commonly called White-thorn, or rather into two thorn trees bowed together, both of which were active in producing the pears. The graft upon which the largest pear grew was of two years growth. The soil is made ground, and borders on the Willamette river, and may be denominated bottom land. I kept a half-barrel tub filled with water, immediately under the grafts, which start about four feet from the ground. The soil may be described as rich, deep and moist."

Exchange of Tree Seeds.

The following is an extract of a letter from Mr. VATEMARE of Paris: "I send you a case containing, among other things, a series of specimens, (451 in number,) of seeds, &c., namely, *seventy-five* varieties of trees, shrubs, &c., growing in the provinces of Algiers, and collected at my request *this year*, by order of His Excellency Marshal Vaillant, Minister of War, for the express purpose of being presented to the Patent Office; and a collection of *three hundred and eighty-six* specimens of the best and newest species of trees, shrubs, plants, flowers, &c., of every latitude, cultivated at the Botanical garden here, and prepared by the Professors and Curators of the Museum of Natural History, to be presented to your establishment. Although these are given without condition, yet I know that both the Minister of War and the Professors would receive with great gratification, returns of a similar nature, particularly those mentioned in another portion of this letter."

"Would it not be possible for you to form in the Patent Office, a kind of depot of all the most important seeds of North America for international exchanges? Were this to be done, you could procure thus a great number of seeds, grains, cuttings, &c., not to be obtained otherwise except by exchange in return. These relations once established, would always continue, giving thus to the Patent Office an annual opportunity of displaying before the old world the specimens of the wonderful resources of your glorious country—sowing thus with the seeds, the influence which these would secure wherever they would be seen and cultivated. Think about this proposal—it is, I think, worth your attention."

"Meanwhile, should you want cuttings from the nursery of the Garden of the Luxemburg, vines, &c., from my knowledge of the favorable disposition of the government towards our system of exchange, I think I can assure you that anything of this kind you may ask will be cheerfully granted."

"I will not close this letter without expressing to you the great gratification felt here by all the agricultural societies and farmers for your excellent and most important Agricultural Reports. They are indeed rendering immense service to the agronomic world."

Recipes for Spruce Beer.

EDS. CO. GENT.—A subscriber asks in no. 15, for a recipe for spruce beer. I enclose two for the benefit of inquirers.

Put into a large kettle ten gallons of water, quarter of a pound of hops, and a teacupful of ginger. Boil them until the hops sink to the bottom. Then dip out a bucketful of the liquor, and stir into six quarts of molasses, and three ounces and a half of essence of spruce. When all is dissolved, mix it with the liquor in the kettle, strain it through a hair sieve into a cask, and stir well into it half a pint of good strong yeast. Let it ferment a day or two, then bung up the cask, and the beer may be bottled the next day. It will be fit for use in a week.

For essence of spruce, two pounds of the outer green sprigs of spruce fir, (or hemlock) boiled ten minutes in the liquor, may be substituted.

ANOTHER.—Boil a handful of hops (rather indefinite) in two and a half gallons of water, and when it is luke-warm, stir into it a tablespoonful of ground white ginger, a pint of molasses, a tablespoonful of essence of spruce, and half a pint of yeast. Mix all well together in a stone jug, and let it ferment for a day and a half, or two days. Then put it into bottles, with three or four raisins in the bottom of each, to prevent any further fermentation. It will be fit for immediate use.

Ginger Beer.

The following is a very delicate, refreshing summer drink, much preferred by many to spruce beer, and more easily made:

Break a pound and a half of best loaf-sugar, and mix with it three ounces of best white Jamaica ginger, broken as fine as possible, and the grated peel of two lemons. Put these ingredients into a large stone jar, and pour over them two gallons of boiling water. When it becomes milk-warm, strain it and add the juice of the lemons, and two large tablespoonfuls of yeast. Make this beer in the evening, and let it stand all night. Next morning bottle it in strong glass or stone bottles, tying down the corks with twine. It is better after standing a few days. J. I. C. West Philadelphia.

Inquiries and Answers.

DRYING RHUBARB—HOO-SUNG, &c.—1. Have you had any experience in drying rhubarb for future use? Is there anything peculiar in the manner of drying and preserving it? 2. I have not seen that promised "article on the insects that infest currants and gooseberries;" yet I wish to know how to keep my gooseberries from being eaten up by worms *this year*. 3. I would like to inquire what this foreign herb, named Hoo-sung, is, and how eaten. What do you think of it? E. G., JR. *Ashfield, Mass.* [1. We have never known rhubarb dried for future use. 2. The promised article on the insect which infests the currant and gooseberry has never been received. 3. The Hoo-sung should be cooked and served up the same as asparagus. To be eatable, it should be grown on a rich warm soil, that it may have a rapid growth, and be used while young. We think it hardly worth cultivating.]

AG. PAPERS IN ILLINOIS.—Will you inform me through THE CULTIVATOR of the name and address of some of the best agricultural monthlies published in Illinois? A SUBSCRIBER. [The *Illinois Cultivator*, published in Springfield, is, we believe, the only monthly agricultural journal now published in Illinois—at Chicago there are two good weekly agricultural journals—the *Prairie Farmer*, and *Emery's Journal of Agriculture*. The monthly is \$1 a year, and the weeklies \$2. Address the Editors at the places named.]

BLACK ANTS.—Can you, or any of your readers, tell me an easy, effectual mode of ridding a house of small black ants, when they have become so plenty that nearly every room is swarmed with them? If you will state it in your paper you will, I doubt not, greatly oblige others beside myself. A CONSTANT READER.—[A gentleman at our elbow, says that fifty cents worth of camphor will drive them from any house. The powdered gum may be put in the places where they are most frequently seen, or rags, thoroughly saturated with dissolved camphor, may be placed about the cupboards or rooms they frequent, and a portion of the liquid poured into their holes. They dislike strong scents, and our friend assures us that if the remedy is thoroughly applied, they will entirely disappear.]

THE BEST PLOW.—I would like to have you or your correspondents inform me which of the many plows in use, is absolutely the best to turn *flat furrows* upon uneven surfaces, and requires the least power to draw it. [We are really unable to answer the question—it would require a thorough and careful trial of many hundred patented plows, used in all parts of the country—a trial which no one person could well make.] Also, when is the proper time to sow Orchard grass seed? [Early in spring.] ALFRED CRUM. *Goshen.*

MASK FOR THRESHERS.—Can you inform me through the columns of the Cultivator, where I can obtain a mask or covering for the face, to be used when I am threshing with a machine, to keep the dust out of the mouth and eyes, and also the price. A SUBSCRIBER. [A common veil, drawn from the hat downwards, is often used, but it excludes the coarser particles of dust only—the finer pass through. Can some of our readers give a better answer?]

HEN-MANURE—RASPBERRIES—CELERY, &c.—(R. J. H., *Cook Co., Ill.*) We would not recommend mixing ashes with hen-manure—but would prefer pulveri-

zing it finely, and then mixing it thoroughly with the soil at once. The ashes may be applied afterwards. This will prevent the escape of ammonia. Or, the hen manure might be first thoroughly mixed with several times its bulk of soil, and after remaining a few weeks, applied to the land. A quarter to half a ton of the original hen-manure, would be a heavy application per acre. Wilson's Albany strawberry is likely to prove one of the very best varieties—possibly it may not succeed so well at the west. The plants may be had of John Dingwall, or John Wilson, Albany. Houghton's is the most reliable gooseberry, although the berries are not large. It is extremely productive, and rarely or never mildews. The Fastolf and Franconia are excellent raspberries—the Orange, perhaps, the best of all, although rather soft for marketing. The New-Rochelle blackberry (the name *Lawton* is rejected,) is large and productive, but not high-flavored. Our early spring numbers of this journal, furnish the best directions we can give on the culture of celery.

PEARS ON THE HORNBEAM.—Will you inform me through your valuable journal, whether the pear will succeed well engrafted in the hornbeam tree? This tree grows to a limited extent in our forests. I have been informed by a gentleman that such is the fact, but not feeling entire confidence in the assertion, I take this method of gaining more light on the subject. S. G. DAVIS. *Lexington, Mass.* [We have never known the trial to be made; but we do not see how it can possibly succeed. The two trees belong to totally distinct natural orders,—the pear to Rosaceæ, the hornbeam (*Carpinus*) to Amentaceæ—and they are more unlike in their nature than the pear is unlike the pumpkin, or than the hornbeam is unlike the hedge nettle. We would as soon think of grafting a red-pepper on a currant bush.]

ONE-HORSE MOWERS.—Will you inform me in your next no. where I can obtain a one-horse mowing machine, (the best in market is the kind I want,) and the cost? SAMUEL LANGDON. *Jonesville.* [We do not see any one-horse mowing machines advertised, nor do we know where they can be had.]

GALLOWAY CATTLE.—I see that you want the address of some of the breeders of Galloway cattle in Canada. The address of the first importance, and I believe still the largest owner of any in the Province, of Galloway cattle, is WILLIAM RODDICK, Port Hope, C. W. Mr. George Roddick of the same place, is also an importer and breeder. There are also breeders of that class of stock in the township of Vaughan, C. W. Their names are Mr. Graham, Mr. Torrance, and Mr. Fleming, but I do not know their exact post-office addresses. I write in extreme haste, else I would have given some particulars of that breed of cattle. W. R. *Cobourg, C. W.* [We should be pleased to hear from our correspondent on the subject.]

SACCHAROMETER.—Can you inform me where I can procure the instrument called "Saccharometer of Beaume," and at what price, so that I may know where to send for it. A. S. [We cannot.]

CURE FOR CORNS.—Among your "Inquiries and Answers," there is a seeker after a cure for corns. A remedy has been used in this city and vicinity with considerable success. It is *Arbor Vitæ*. If bruised and bound upon the corn, it gives speedy relief, and in most cases it removes the sore. The hard or callous,

as well as the soft corns, yield to this remedy. The above method of applying the cure is rather inconvenient, and we have prepared a "Fluid Extract of Arbor Vitæ," which is equally or even more efficient. H. & J. BREWER. *Springfield, Mass.*

DRYING CURRANTS.—Will you please give the best method of drying currants, with no other facilities than a cook stove and sunshine, and oblige J. W. C.

SICK COW.—Will you oblige a subscriber by informing him, or requesting some one who knows, to do it, what I should have done to save the life of a valuable cow. She calved well, and I supposed she was out of danger, but the next day was taken with apparent weakness in the hind parts, which increased until she fell, and could not rise. She died in great distress the following night. There has been several cases of this kind in this township, and I have not heard of any one being cured. The disease here is called milk fever. The bag of my cow was badly swollen, but did not appear feverish. JOHN FLINT. *Brooklyn.*

HOOF DISEASE.—Can you or any of your numerous readers give me a cure for the foot or hoof evil or disease. I have a young mule, who for two years past has been affected in all four feet. The disease seems to originate round the top of the hoofs, under the hair, which keep sore and tender all the time. The hoofs grow rapidly, having cut off as much as three inches at once, though often pared down, and the frogs appear to be a diseased mass. I have tried every thing I can think or read of, to no purpose. Some of my neighbors recommend shooting. This manner of "cure" I am decidedly opposed to. I am unable to give any cause for the disease, never having been founded to my knowledge. Your attention will oblige LA.

GRAFTING THE CHERRY.—Can the cherry be grafted too early in the spring, so that there will be danger of the graft drying up before the sap begins to circulate? J. W. L. *Frenchtown, N. J.* [The cherry may be grafted too soon in winter—but for one case of grafting too soon, there are a hundred too late. The graft, should usually be set before the frost leaves the soils or about two or three weeks before the commencement of the buds swelling.]

HYDRAULIC CEMENT.—Will some one of your correspondents that *know*, inform me through THE CULTIVATOR, whether hydraulic cement will make a durable stercorary, or will the liquid manure, by a slow chemical action, gradually soften and disintegrate it? C. L. HARTWELL.

DRAINING IN IOWA—MARKET GARDENING.—Can you inform me at what price draining tiles can be had in the west? On our rolling prairies we have "shady sides" as well as "sunny-sides." Could you inform me what crop or crops would be most profitable for a market garden, to put on the north side of our prairie bluffs, and on rich moist loam in the slues? Early information on this point would greatly oblige. J. P. *Iowa City.* [We know of no place west of Lake Erie where drain tile are made. As to the crops about which our correspondent inquires, he will be most likely to obtain the most reliable advice from those in his vicinity who have had experience in the matter.]

TENDER-MOUTHED HORSES.—In the Co. Gent. of May 6, I find an inquiry of H. P. L., how to cure tender-mouthed horses. A few years ago I parted with a very fine mare on just that account; she was so ten-

der-mouthed that she could not be started in the team till her mate and wagon moved. The man who got her had her all right in two or three weeks, and told me that rubbing the corners daily with fine salt was all he had done to her, and was an infallible remedy. G. D. D. *Spring Valley.*

MULTICOLE RYE—SIDE-HILL PLOW.—I see, in looking over the back numbers of "The Cultivator," the Multicole Rye spoken of very highly. Does it prove to be valuable as a crop, and how much does it yield per acre—also does it make as good bread as common rye? Is it as hardy as common rye? Which is the best side-hill plow for one pair of oxen? Will any of the side-hill plows turn sward land that lies level, as well as common plows? Answers to the above through "The Cultivator," will much oblige J. H. *Litchfield*

Colic in Horses.

"Can you give me the best remedy for the colic in horses, and much oblige yours, B. C."

Colic in horses is a very common disease, and if taken in time may be easily cured in most cases. It is not unfrequently confounded with inflammation of the bowels, but is easily distinguished as follows: Colic has no increase of the pulse, which is not over fifty a minute; the animal often rolls; the disease intermits, and there is but little fever. With inflammation of the bowels there is much fever; the pulse is sometimes a hundred a minute, the attack is gradual, and the disease does not intermit.

When colic arises from bad food, a pint or so of a solution of saleratus will often afford entire relief. As it assumes more of a spasmodic character, peppermint and ginger may be added. We have used with entire and immediate success, a small spoonful of saleratus, the same quantity of ginger, and a tea spoonful of peppermint, added to a pint of nearly hot water, and given from a junk bottle. Powdered charcoal is one of the best and safest mediums for any disease resulting from derangement of the digestion—and two or three ounces or more mixed with water, may be given at any time with great advantage.

Inflammation of the bowels is generally increased and rendered fatal by irritating medicines. A drink of slippery elm, hourly, to allay irritation—giving the animal but little food, and that weak gruel, and keeping him quiet, is good and safe treatment.

To prevent Sows Killing their Pigs.

A correspondent of the *Maine Farmer*, speaks of several cases of sows destroying their pigs—which, indeed, is not unusual—and commends as an easy and sure prevention, "to give the sow about half a pint of good rum, or gin, which soon produces intoxication, and the drunken mother becomes entirely harmless toward her young, and will ever accommodate her position to the best advantage of the pigs," retaining this disposition ever afterwards. The Editor confirms this statement from cases within his own knowledge.

The Royal Ag. Society of England have decided to hold their exhibition for 1859 at Warwick, where it has never been held. The Journal of the Society, so long edited by the late Philip Pusey, is to be continued under the joint editorship of Mr. Thompson, Mr. Dyke Ackland, and Mr. Wren Hoskyns.

Notes for the Month.

BEST TIME TO CUT GRASS AND THE BEST MODE OF CURING HAY.—This is a subject of greater importance than many farmers suppose, for there can be no doubt that there is frequently a loss of one half in the value of hay, by errors and carelessness in this respect. The remarks of our correspondent, J. H. H., (see p. 221 and 282,) on early cutting grass, have called out several communications, which we shall soon give to our readers, and we anticipate that much light will be thrown upon the subject before the discussion closes. The remarks of our friend JOHN JOHNSTON in this number, will not fail to attract attention, and to be read with the interest due to a farmer of his careful observation and long experience. In connection with this subject, and particularly in reference to the sweating process recommended by Mr. JOHNSTON, we quote the following description of the mode of curing hay in Bavaria, as given by Prof. S. W. JOHNSON in one of his letters from Germany, published in this paper in 1854. Prof. J. says:

On account of the variability of the weather, a peculiar method of curing hay is practiced. One observes numerous little log barns fifteen by twenty feet square and ten feet high, scattered over the lower Alps. I have counted over one hundred of them from a single position, and they communicate a singular effect to the landscape, as their roofs, in common with those of all the peasants' buildings, are thickly overlaid with large stones. Into these shanties the hay is thrown while half dry, and thoroughly trodden down. It shortly ferments, and the hay becomes dark brown in color, and forms a quite solid mass, which may be cut out with a spade. Prof. Fraas, of the Munich University, says in his Principles of Agriculture, that this so called "brown hay is as good for cattle as ordinary hay; it is in fact preferred by them, and appears to be more nourishing."

Stephens in his Farmer's Guide, says that in Saxony, the grass cut during the day is put into large cocks late during the same afternoon, when a strong fermentation ensues, and continues through the night. In the morning, when the cocks will be found very much contracted, it is spread out to dry, and by afternoon is sufficiently cured to be stacked. In this way the hay is thoroughly "sweated," but the process in this country would not be a safe one, as should the weather be such as to prevent the spreading and drying on the second day, the rapid fermentation would ruin the hay.

The Cyclopaedia of Agriculture also says that "it is a commonly received opinion, that hay made from good land, and thoroughly heated in the stack, is conducive to the rapid fattening of cattle—the criterion with old fashioned farmers, being the sticky or glutinous matter left on the fingers during the operation of cutting the stack."

ALBANY Co. AG. SOCIETY.—The Premium List and Regulations for the next fair of this Society—to be held at the Washington Parade Ground in this city, Sept. 21—24, have been issued in a handsome pamphlet. If the farmers of this county would do justice to themselves, they would make this the best county exhibition in the State. They have the material, and only need the energy and ambition to bring it forward.

ENGLISH WHITE KIDNEY BEANS.—In this number will be found a valuable paper from Mr. HOWATT, on the Culture of the Bean, from which it will be seen that he prefers the large English white kidney to any other variety, for field culture, and that besides being

more productive, it brings a better price in the New-York market than the smaller varieties, a fact of which we were not before aware. Indeed we had supposed that the smaller varieties were preferred for cooking; but having received a bushel of the White Kidney from Mr. HOWATT, for which he will accept our thanks, we have tried them, and concur with him in his estimate of their qualities.

MOWING WITH A MACHINE.—Mr. CARLOS STEBBINS of Pike, N. Y., informs us that he bought a mowing machine four years ago, with which he has, in the four years, cut 600 acres of grass, at a total expense, including the purchase and repairs of the machine, interest, labor, &c., of \$343.80—from this deduct \$75, the present value of his machine, and we have the sum of \$268.80 as the actual cost of cutting 600 acres. To have performed the same work with the scythe, would according to Mr. S.'s estimate, have cost him \$668, leaving a balance of \$399.20. The machine was one of Ketchum's patent, and the whole expense for repairs in the four years, including time spent in making them and cash paid, was only \$5.10.

Mr. SAMUEL SANDS, who has been connected with the *American Farmer*, published in Baltimore for about twenty-five years, has disposed of his interest in it, to his late partner, Mr. N. B. WORTHINGTON, by whom it will hereafter be conducted and published. The Farmer attained a high reputation while under the charge of Mr. Sands, and we regret his retirement from the corps of which he has been so long a member and which he so highly honored.

FARMING WITHOUT LIVE STOCK.—Theoretical farmers have some times attempted to carry out a system of grain growing exclusively, expecting to keep up the fertility of the soil by turning under green crops and the use of commercial manures. All, however, fail (after a greater or less interval,) as soon as the soil becomes exhausted of elements to be stimulated. A mixed husbandry alone can sustain itself without ultimate exhaustion.

PRESERVATION OF FRESH FRUIT IN CANS.—We have several inquiries on this subject, and shall be greatly obliged to any one of our friends who will furnish us the necessary directions to enable our readers to preserve fresh fruits in cans or jars.

"DOUBLE DUKE."—The famous Short-Horn bull "Double Duke," bred by Col. SHERWOOD, has just been sold by C. P. WOOD of Auburn, to Mr. P. STEDMAN of Chicopee, Mass. Mr. S., who passed through this city with the bull last week, informs us that he bought him for an association of farmers in his neighborhood, all of whom, we doubt not, will be well pleased with him, as he is an animal of good pedigree and great substance, and cannot fail to make his mark on the stock of Hampshire and Hampden.

OBJECTIONS TO DRAINING.—A correspondent of the *N. E. Farmer*, objects to draining, that "It is exhaustive—it adds nothing to the soil. It is not a fertilizer," and he is especially down on the statement that "It hastens the decay of roots and other vegetable matter" in the soil, calling it a fact "far more encouraging to the race of farm-skinners, than to those who wish to improve the soil." * * An apparent improvement in crops may for a time be ascribed to drainage, which should be credited to the gradual impoverishment of the soil consequent on this very decay of

vegetable matter." We would merely ask of what benefit is undecayed vegetable matter, as food for plants? Can any crop be grown and removed except at the expense of the soil?

AG. SURVEY OF ONONDAGA—MR. GEDDES' THEORY AND PRACTICE.—At a meeting of the Executive Committee of the N. Y. State Ag. Society, held at Syracuse last week, an arrangement was entered into with Hon. GEO. GEDDES, by which that gentleman undertakes an agricultural survey of Onondaga county for publication in the Transactions, similar to those already completed and published of other counties. The thorough and practical knowledge he already possesses of the field to be occupied, as well as of the ends to be met in such an undertaking, justify us in anticipating a result not only creditable to its author, but highly serviceable to the farmers of this and other portions of the State.

It may be added that the writer had the opportunity of spending an hour on the productive farm of Mr. G., at the time of the session of the Committee, and hopes at some future day to extend the observations then commenced sufficiently to be able to communicate them through these columns. The evidences of thorough and systematic cultivation it everywhere presented, were amply sufficient to justify the high reputation its owner has long maintained as a practical and actual Country Gentleman—an enlightened tiller of the soil. Those who have heard him claim for the geological formation on which he lives, exhaustless fertility, even if unmanured, will be pleased to learn that he renders its fertility exhaustless, not only by turning in an abundant clover crop once in five years, and freely plastering this and other crops, (neither of which processes does he call *manuring*;) but also by careful economy of his stable and yard manures—adding to them all his straw, for which there is no better market within reach, and applying the pile drawn out in spring and well rotted by fall, at the latter season, to those fields or upon those spots which need it most. Acting constantly and we might add conscientiously on this system, it is perhaps allowable for him to hold any creed he chooses as to the inexhaustibility of his fields, and such a theory, if productive uniformly of such a practice, we might be glad to see studied and carried into effect on every kind of soil and formation from Maine to Oregon. Will Mr. GEDDES let us hear from those wheat and grass crops after harvest?

THE HEAVIEST BULLOCKS.—There have been many reports of fat oxen whose weights were said to be from 3,500 to 4,500 lbs, but the New-York Tribune insists that the largest bullock ever raised in America, if not in the world, was the ox known as the "George Washington," whose stuffed skin may be seen in life-like proportions in the rooms of the Butcher's Hide and Fat Association of New-York. Washington was five years nine months and fourteen days old, and was slaughtered in 1840.

| | |
|--|------------|
| His live weight was..... | 3,204 lbs. |
| Weight of one fore quarter..... | 612 " |
| Weight of the other fore quarter..... | 598 " |
| Weight of one hind quarter..... | 487 " |
| Weight of the other hind quarter..... | 477 " |
| 2,174 lbs. of beef—70 lb. per cwt. of live weight. | |

The Saratoga Co. Press, however, says that J. M. Cole of Saratoga Springs, slaughtered an ox in 1847, whose live weight was 3,520 lbs.—dressed 2,567.

THE HEAVIEST BULLOCKS.—In a late no of the CO. GENT., (p. 336,) we gave from the New-York Tribune the

live and dressed weight of the famous ox "George Washington," which was slaughtered in 1840. He was five years nine months and fourteen days old, and weighed alive 3,204 lbs. This the Tribune claimed to be the largest bullock ever slaughtered in America. A correspondent has since called our attention to the large ox fed by the late P. N. Rust of Syracuse, and which was exhibited at the State Fair in this city in Sept., 1842. A portrait of this ox was published in THE CULTIVATOR for Dec. 1842, where it says—"This ox is now eight years old. His live weight, Feb 19, 1841, was 2,360 lbs. On the 16th Jan., 1842, it was 3,400 lbs. When exhibited at the State Fair in Albany, Sept. 28, 1842, he was said to weigh 4,200 lbs., which would be a gain of about 3 lbs. per day for nineteen months. He yet retains his activity and appetite, and continues to take on flesh about as fast as ever." We can find no farther notice of this ox, and we shall be greatly obliged if any of our friends at Syracuse can inform us when he was slaughtered, his live weight at the time, and weight of the quarters, &c.

ROTATING HARROW.—The engraving and description of this Harrow, copied into another page of this paper, is from the *Ohio Farmer*, and should have been credited to that journal. It is a very ingenious contrivance, and if it equals the anticipations of its inventors, will be a great improvement.

SHARE'S HORSE HOE.—This implement, which can now be procured of PEASE & EGGLESTON in this city, is very highly recommended as superior to the plow or cultivator for cultivating corn and potatoes, by many good farmers who have used it.

A READER'S INDEX.—I have frequently been surprised at the careless manner in which many readers must peruse your pages, as is proved by the same question being sometimes asked within a week or two after it has been answered, and was glad a correspondent suggested the use of an index to refer to, a sample of which was published in a late number. I have kept one for some time, which I think an improvement, and will endeavor to explain it. As the items are gathered from various sources, and at long intervals, it would be impossible to arrange them alphabetically under the different letters; I therefore divide each letter into six different parts by the vowels, as Aa, Ae, Ai, Ao, Au, Ay—by so doing, and arranging the items under the first vowel, following the first letter of the word or name to be referred to, it is evident that as the index becomes full, much labor will be avoided in searching for any particular item. Any farmer or mechanic could make a common blank book do. J. I. C.

LARGE SALE OF SHORT-HORN CATTLE IN ENGLAND.—The entire herd of Short-Horns, consisting of 46 head, belonging to Mr. Cartwright of Aynhoe, were sold by Mr. Stafford on the 5th of May. There was a large company present, the bidding was spirited, and good prices obtained. Thirty-five cows and heifers were sold at an average price (estimating the pound at \$5) of \$326. The eleven bulls sold averaged \$291 making an average for the 46 head of nearly \$318.

SANFORD HOWARD, one of the editors of the *Boston Cultivator*, sailed on the first inst. for Europe, where he is to spend some months in the examination of British and Continental Agriculture. He goes out under the authority of the trustees of the Massachusetts Society for Promoting Agriculture, for whom and

for individuals also, he is to make considerable purchases of improved live stock. Letters intended for Mr. Howard while abroad, may be directed to the care of Messrs. Baring Brothers & Co., Liverpool.

ST. LAWRENCE CO. AG. SOCIETY.—The annual meeting of this Society was held at Canton on the 8th of June, when the following officers were elected:

President—HENRY G. FOOTE of Ogdensburg.

Vice Presidents—Cyprian Powell of Madrid; Joseph E. Orvis, Massena; Wm. Wilson, Potsdam; Jonah Sanford, Jr., Hopkinton; Nelson Doolittle, Russell; Cornelius Faville, DeKalb; Reuben Nott, Rosie; Chester Dyke, DePeyster.

Secretary—L. E. B. Winslow, Canton.

Treasurer—Ebenezer Miner, Canton.

The Treasurer's report was read, and showed a balance of \$389 49 in the treasury.

At a subsequent meeting of the Executive Committee, the 15th, 16th, and 17th of September next were designated as the days for holding the annual fair. A resolution was also passed to purchase the part of the grounds occupied but not now owned by the Society.

☞ The Kentucky papers announce the death of the Hon. ADAM BEATTY, at his residence in Mason Co., in the 82d year of his age. Judge Beatty was one of the earliest and most earnest advocates for agricultural improvement in Kentucky. A volume of his Essays on the Agriculture of Kentucky was published in 1844.

☞ The next New-Hampshire State Fair is to be held at Dover, October 6th, 7th and 8th. Rev. E. H. CHAPIN of New-York will deliver the address.

KENTUCKY FAIR.—The time of holding the next Kentucky State Fair has been changed from the first week in September, to Tuesday, Wednesday, Thursday, Friday, and Saturday, September 28th, 29th, and 30th, and October 1st and 2d.

CULTURE OF MILLET.—I see some of your correspondents tell of sowing Millet broadcast for seed. Much the best way is to sow it in drills, say 3½ feet apart, and plow it, or use the cultivator the same as with corn. The seed will then all mature to perfection, and many of the heads will be 10 or 11 inches in length. For hay, we sow here from 3 pecks to a bushel per acre, and sow from 1st May to 15th July. M. E. Marroubone, Tenn.

OREGON AGAINST THE WORLD FOR PRODUCTIVENESS.—I raised from one single blue pea that came up in my orchard, eighty-four pods, containing five hundred and twenty-seven good sound peas. And I also raised on one single head of oats, six hundred and two grains. This looks like large figures, but it can be proved by men that helped to count them. I also raised a Shaker blue potato, that weighed eight pounds and one ounce, without irrigation. P. PRETTYMAN. *Paradise Springs, O. T.*

U. S. FAIR.—We hear that the United States Ag Society has determined to hold their fair for this year, at Richmond, Va., about the 25th of Oct.

UNDERDRAINING.—In the report of the Tioga Co. Society in our last State Ag. Transactions, instances are given where swamps were drained through the clay bottom into the underlying gravelly subsoil, by digging wells and filling them with stones. In the same way we saw a wet cellar drained, at a small expense, through the hard-pan into the coarse sand beneath.

NATIONAL HORSE SHOW.—A National Horse Show is to take place at Springfield, Sept. 14th and the two days following. One of the new features of the exhibi-

tion will be the State Prize Banner, costing \$100, which will be awarded to that State, other than Massachusetts, which shall by its citizens enter for exhibition the largest number of valuable horses. The horses will parade by states, and an opportunity will thus be afforded the spectators of comparing and contrasting the different breeds and products of different localities. Nearly three thousand dollars are to be offered in premiums.

CHANGING PASTURES.—A milk dairyman near Boston, has his pasturing in four lots, and enumerates the following among other advantages in the division. More stock can be kept by one-eighth on a given number of acres—by keeping on each one week at a time; when the fourth is turned into, the grass is fresh and large, (and so of each field through the season)—the cattle are quiet and peaceable, much more so than when kept uniformly in one lot. His experience makes him a believer in the old saying, "A change of pasture makes fat calves."

MUCH FROM LITTLE LAND.—The Provincetown Banner gives the following as the product of about seven acres, cultivated by Thomas F. Small, on Cape Cod. With the exception of a dollar and a quarter paid for additional help, all the work was done by the owner and his son, a boy twelve or thirteen years of age:—

| | |
|--|----------|
| 100 bushels corn, worth..... | \$100.00 |
| 150 " beets, sold for 60 cents per bushel,.... | 90.00 |
| 80 " potatoes, sold at 8½ cts. "..... | 70.00 |
| 50 " turnips, sold at 60 cts. "..... | 30.00 |
| 10 " beans, worth \$2.25 "..... | 22.50 |
| 20 " rye, worth \$1.40 "..... | 28.00 |
| 200 " carrots, worth 25 cents "..... | 50.00 |
| Squashes and pumpkins,..... | 20.00 |
| Milk sold,..... | 125.00 |
| 1,000 cabbages, sold at 6 cts. each,..... | 60.00 |
| Eggs and fowls,..... | 75.00 |
| Pigs,..... | 50.00 |

Amounting in the aggregate to..... \$720.50

SALT FOR WHEAT.—Our correspondent JOHN JOHNSTON of Geneva, writes to the Ohio Farmer, that he salted fourteen acres of wheat last autumn, and that it now surpasses any he has seen, and is much superior to eleven acres in the same field, on which no salt was sown—both being sown on the same day, and treated in the same manner. He thinks it will mature four days earlier. He is generally successful, and sometimes sows seventy-five barrels in a season. On a lighter soil, we have seen salt on wheat without any visible effect.

COVERING THE SOIL.—USE OF CLOVER.—In recently speaking of the system employed by George Geddes, as involving the plowing in of a clover crop once in five years, we were really a little short of the truth. He is also in the habit of sowing clover seed with the crop of spring grain, (oats, barley, or spring wheat) when it occurs in his rotation. This gives a sufficient bite to the stock after the grain is harvested to pay for the seed, while it also prevents the ground from lying bare until it is time to sow the winter wheat that follows, and the roots and tops make a heavy manuring for the field in addition. So that this is a double clover dose during the five years.

THUMPS.—A writer in the *Cotton Planter* says, "I have frequently had cases of thumps among my hogs, and my remedy is to tar the corn before feeding it to them. I usually commence soon after Christmas, and regard it as a preventive."

Sale of Stock of Messrs. B. & C. S. Haines.

Messrs. B. & C. S. Haines of Elizabeth, N. J., last week held their advertised auction sale of Short-Horns, Horses, Sheep and Swine. The attendance was large and complimentary, and the day a fine one. Among gentlemen present from this state were Hon. Wm. Kelly, Col. B. P. Johnson, Hon. A. B. Conger, C. S. Wainwright, Messrs. Samuel and Edwin Thorne, C. P. Wood, W. H. Sotham, Wm. Hurst and others; of New-Jersey, Messrs. Hartshorne, Saxton and others; Henry Carroll Jr., of Maryland, while Connecticut, Rhode Island, Pennsylvania, and perhaps other states were also represented. JOHN R. PAGE of Sennett, Cayuga Co., made his debut as auctioneer, and after his hand was fairly in, did as well for the interests of the owners, and perhaps better, than might have been anticipated in view of the "times." The prices received will be found below, and although not high, are still by no means of a discouraging kind.

An excellent lunch had been provided, and after it had received due attention from visitors, they proceeded to the business of the day. A notice of the beautiful and well kept grounds of the Messrs. HAINES so recently appeared in our columns, that we do not stop now to admire them, but pass at once to the figures:

BULLS AND BULL CALVES.

| | |
|---|---------|
| 1. Columbus, 3 months old, D. B. Kershaw, Phila., | \$195 |
| 2. Lafayette, 8 months, Wm. Hurst, Albany, | 205 |
| 3. Sanhican, 17 months, H. P. Greenwaldt, Frank- lin Co., Pa., | 185 |
| 4. Mohican 5 months, D. D. Pearce, Providence, R.I., | 150 |
| 5. Essex Hero, 11 months, Robt. Campbell, N. Y., | 205 |
| 6. General Havelock, D. B. Kershaw, | 200 |
| Six Bulls, | \$1,140 |
| Being an average of \$190 each. | |

COWS, HEIFERS AND HEIFER CALVES.

| | |
|--|---------|
| 1. Lady Cateret, 22 months old, Robert Campbell, New-York, | \$140 |
| 2. Gertrude, 8 years, Wm. Kelly, Rhinebeck, | 215 |
| 3. Creampot 6th, 10 years, Wm. Kelly, | 125 |
| 4. Jenny Lind, 7 years, E. J. Halsted, Orange, N. J., | 110 |
| 5. Duchess Rose, 5 years, E. J. Halsted, | 110 |
| 6. Jessie Brown, 2 months, E. W. Adams, White- hall, N. Y., | 60 |
| 7. Rose, 2 years, E. J. Halsted, | 75 |
| 8. Nymph 5th, 4 years, Timothy Mather, Hartford, Conn., | 250 |
| 9. Gypsy 3d, 3 years, Wm. Ross, Jr., Brown Brook, N. J., | 120 |
| 10. Nymph 8th, 2 yrs, R. Thursby, Brooklyn, N. Y. | 100 |
| 11. Nymph 9th, 19 months, withdrawn, but after- wards sold to D. B. Kershaw, for | 200 |
| 12. Nymph, 14 years, Wm. Hurst, | 165 |
| 13. Zoe, 5 years, A. B. Conger, | 325 |
| 14. Sunshine, 6 yrs, Henry Meeker, Clinton, N. J., | 290 |
| 15. Nymph 7th, not in the catalogue, but sold at pri- vate sale to D. B. Kershaw, for | 700 |
| Fifteen sold for | \$2,985 |
| Being an average of \$199 each. | |

BROOD MARES AND COLTS.

| | |
|---|-------|
| Black Hawk Maid, 9 years, Wm. Hurst, Albany, .. | \$225 |
| Fanny Kemble, aged, Wm. Hurst, Albany, | 210 |
| White Stocking, 3 years, W. Kelly, Rhinebeck, | 110 |
| Lady Franklin, 7 years, Geo. Adams, Whitehall, .. | 170 |
| Pet, 10 years, E. J. Cowley, Milburn, N. J., | 160 |
| Aurora, 2 years, C. P. Wood, Auburn, | 260 |
| Success and Colt, | 210 |
| \$1,335 | |

There were also sold ten head of Suffolk hogs, from seven months to one year old, at from \$15 to \$25 each. Twelve pairs of pigs, from four to six months old, were sold at from \$10 to \$15 per pair. A few pairs of Berkshires, three months old, were also disposed of at prices ranging from \$10 to \$18 per pair. The following day

Messrs. Haines sold two colts sired by the horse Murat, and out of two of their best mares, to Geo. W. Adams of Whitehall, in this State, for \$700—one of them 11 months old, and the other running with the mare.

AGGREGATE—EXCLUSIVE OF SWINE.

| | |
|----------------------------------|---------|
| Six Bulls and Bull Calves, | \$1,140 |
| Fifteen Cows and Heifers, | 2,985 |
| Seven Mares, | 1,335 |
| Two Colts, | 700 |
| \$6,160 | |

Retaining in their hands, as Messrs. B. & C. S. Haines now do, a full proportion of their best animals, (for one of which, a cow, a bid of \$1,000 was refused at the close of the sale,) they will continue their operations as breeders of Short-Horns under the most favorable auspices.

Abstracts from our Foreign Ag. Journals.

"GOOD POINTS" EASILY OBTAINED.—At a recent cattle Show at Ayr, Scotland, the prize-taker on Ayrshire bulls was detected in a shorter cut at "good points," than the ordinary slow way of getting them by careful breeding. *False horns* were not only attached, a thin band of gutta percha being put round the base of the horns and fastened by some adhesive substance, and the hair carefully placed over it—but the skin of the animal was also punctured behind the shoulders, and inflated with air, in order to fill its hollow "crops," and, besides, a coarseness under the neck was obviated by trimming out a piece of the superfluous skin here, and disposing the hair to hide the scar. The third animal in the same class had also been altered in appearance, by puncturing and blowing. The offending person is very properly excluded from showing stock again in Ayr, and the directors further resolved that the case should be laid before the Procurator Fiscal for the Crown counsel, to decide whether or not the offender should be criminally prosecuted.

FAT VS. MILK AND STAMINA.—"In trying to breed animals with too great a proportion of fat flesh in proportion to the lean, not only are the stamina and size, but the milk is deteriorated, which caused the once Bakewell, *alias* long-horned cattle, to degenerate in size, lean flesh, bone, and milk, being now nearly shadows to what they were in Mr. Bakewell's day. Animals may be bred until they lose nearly all their milk, and many of the Bakewell or Leicester sheep have been bred until they have reduced their size, constitution, milk and lean flesh." As a remedy for the defect, some of the best mutton-growers, are crossing their pure bred Leicesters with the best Lincolnshire rams, "which has increased the wool, size, constitution, and lean flesh,"—and the new breed are more profitable, from producing more weight of wool and mutton per acre.

GRAZING WHEAT IN SPRING.—Thinly planted wheat may be grazed quite late in spring, but wheat too thick is only aggravated by the practice—it will come up thicker than before.

SALT AS A MANURE.—Mr. Christy, an eminent and successful farmer of Carrigun, Ireland, uses salt as a top-dressing for grain crops, at the rate of about four cwt. per Irish acre, which tends to stiffen the straw and prevent lodging. It is generally applied at two different times, which is far the best plan when used as a top-dressing.

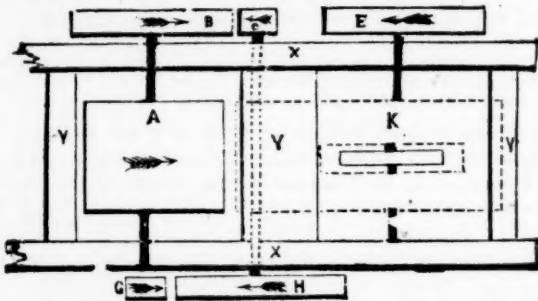
EMERY'S PATENT PORTABLE CIDER AND WINE MILL AND PRESS.

THE annexed Cut and Diagrams represent the latest improved Mill and Press in use. It having been extensively and successfully introduced for three years past, and such improvements as experience has suggested have from time to time been adopted, which makes it without question the most complete in all its parts and operations, and has no equal in the country.

The apples are reduced to a fine pulp by a cylinder grater, which is propelled by hand power by crank, or by a band from any other power, as horse, steam, or water. The apples are fed up to cylinder by means of a plunger or piston, which traverses to and from the cylinder in the bottom of the hopper, thereby moving steadily and with even force the apples, whether hard, soft, large or small, and avoiding all possibility of choking or clogging, or unevenness in fineness of the pulp. This plunger is moved forward by a wedge cam propelled by a band from the driving shaft of the mill; the plunger recedes from the cylinder by the force of a simple wood spring, thus advancing nine-tenths of all the time, and requiring but one-tenth the time to return to its starting position, and receive another charge of apples, for each revolution of cam.

The feeding force being produced by band connection, avoids all accidents to mill or person from getting foreign hard or injurious substances into the mill, as the band will yield and slip on its pulleys sufficiently to avoid injury, whereas all gear feeding mills must be damaged by such an occurrence.

The Press is of more importance even than the other parts. As from all experience in presses, it is satisfactorily established that where the pressure is applied upon a single point of the follower, a very large percentage of power applied is required to overcome friction, torsion, &c., &c., as also a loss of time in repeated adjustments of the follower, &c. To obviate these difficulties, the Press is provided with three parallel screws, positioned to apply the force with uniform motion upon three points equally distant from the center of follower and each other. The screws are forced down by the nuts themselves, revolving by means of cogs in their edges, like cog wheels, and working simultaneously by a lever applied to the top of the fourth cog-wheel, which last works into each of the said nuts, and all move together.



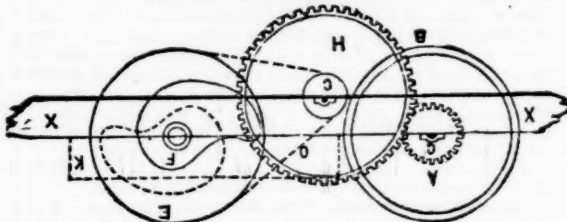
[The same letters refer to the same parts in each diagram.]

- A—Grating cylinder about 11 inches in diameter.
- B—Band pulley, used when driven by Power, answering for fly-wheel of cylinder A.
- C—Small pulley on crank shaft which drives pulley E.
- E—Large pulley driven by C, moving cam F.
- F—Cam for driving feeding piston K, in bottom of hopper.
- G—Small speed gear on cylinder shaft, for driving it when worked by hand.
- H—Large gear wheel on crank shaft, working into pinion G to drive cylinder.
- K—Piston, shown by dotted lines, operated by cam F, in its center, and serves to press forward the apples against the grating cylinder.
- O—Band connecting feed-pulleys C and E.
- X X—Top-girts or supporting plates of mill.
- Y Y Y—Cross-girts of frame-work.

The Mill is provided with a tank below, to receive the apples as they are ground for a barrel of cider. The Mill, when worked by two men, can grind and press from 6 to 8 barrels per day, and when the grinding is done by power, nearly double that amount can be done. The Press is equally well adapted for wine, cheese, lard, pressing clothes, &c., &c. Price \$50. Liberal discounts to all who



EMERY'S PATENT CIDER MILL.



purchase to sell again, or where several are sent to one address.

EMERY BROTHERS,

Proprietors Albany Ag. Works,

No. 52 State-st., Albany, N. Y.

P. S.—A Sugar Cane Mill will be illustrated next number, with prices, &c.

July 1—w&m1t

Mowers and Reapers.

MANNY'S Mower and Reaper, with latest improvements—castor wheel, &c.

Hallenbeck's Mower, also much improved and thoroughly tested (a No. 1 machine.)

Allen's Mower—This has some valuable additions, well and favorably known.

Kirby's Mower—This is a new machine comparatively, and claims the notice of the farmers. It has been favorably introduced the last season.

All for sale, at Retail and Wholesale, by

EMERY BROTHERS,

Prop's Albany Ag. Works,

52 State-st., Albany, N. Y.

July 1—w&m1t

Durham Bull for Sale,

By the subscriber, at the residence of N. L. Van Epps, 2 miles east of Aurora, Cayuga Co., N. Y.; fifteen-sixteenths pure blood, from the old Weddell stock at East Bloomfield—has taken first premiums of the Ontario and Wayne County Agricultural Societies in competing with full blooded animals. He is white, hornless, of fine form, 3 years old, weighs nearly 2000 lbs., and his stock is generally admitted to be superior to the average from most of full blooded animals. Price \$150, if sold soon.

J. J. THOMAS,

Union Springs, N. Y.

6 mo. 17, 1858—w3tm1t

Agricultural Books,

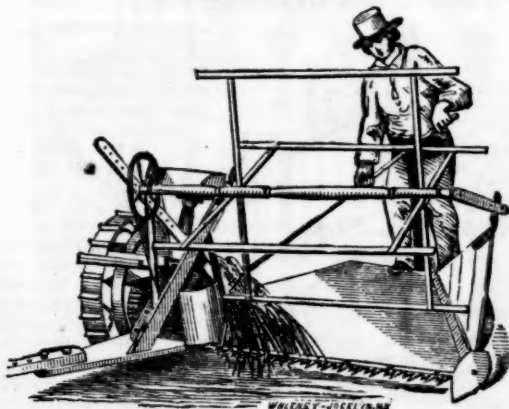
Of all kinds, for sale at the Office of the Co. Gentleman

FOR SALE,

A VERY valuable BREEDING MARE, of the imported "Trustee" and "Black Hawk" stock of horses. Breeders of fine horses are requested to look at her, at the farm of ORIN BENEDICT, in Pittsfield, Mass.
June 3—wltm2t*

For the Harvest of 1858.

The best Combined Reaping and Mowing Machine in use, as endorsed by the United States Agricultural Society.



Manny's Patent with Wood's Improvement.

IT is with much pleasure and renewed confidence, that I offer my machine to the Farmers for the coming harvest, with all its improvements and increased high reputation as a combined Machine and single Mower. The large sale the past season, and great success at the National Trial of Harvest Implements at Syracuse in July last, where it was awarded one Gold and two Silver Medals, is conclusive to every unprejudiced farmer that it is the most approved machine of the kind in use, and the subscriber begs to say that they will be perfect and complete in workmanship and material, and are offered to them on terms accommodating and suited to the times. With each machine will be furnished two scythes, two extra guards, two extra sections, one extra pinion, and wrench.

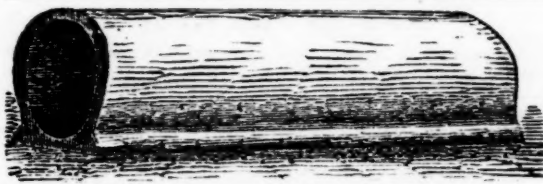
Warranted capable of cutting from 10 to 15 acres of grass or grain per day, in a workmanlike manner.

Price of Machines as heretofore The Combined Machine varies in price according to width of cut and its adaptation in size and strength to different sections of the country, from \$125 to \$150, delivered here on the cars.

Price of Single Mower, steel Bar..... \$115.00
WALTER A. WOOD.

Manufacturer and Proprietor,

April 22—w4ms&mtf Hoosick Falls, N. Y.



ALBANY TILE WORKS,

Corner of Clinton Avenue & Knox St., Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned, and over one foot in length. On orders for 5,000 or more, a discount will be made.

| HORSE-SHOE TILE—PIECES. | | SOLE TILE—PIECES. | |
|-------------------------|----------------|-------------------|----------------|
| 2 1/2 inches rise,-- | \$12 per 1000. | 2 inches rise,-- | \$12 per 1000. |
| 3 " " " " " " | 15 " " | 3 " " " " " " | 18 " " |
| 4 " " " " " " | 18 " " | 4 " " " " " " | 40 " " |
| 5 " " " " " " | 40 " " | 5 " " " " " " | 60 " " |
| 6 " " " " " " | 60 " " | 6 " " " " " " | 80 " " |
| 7 " " " " " " | 75 " " | 7 " " " " " " | 125 " " |

Orders respectfully solicited. Cartage free.

C. & W. McCAMMON,
Albany, N. Y.

PEASE & EGGLESTON, Agents,
Excelsior Ag. Works, Warehouse and Seed Store,
Mar. 1—w&m8m. 84 State-st., Albany, N. Y.

**MOWING MACHINES,
Patent Wheel Steel Tooth
HORSE RAKE,
Neishwitz's Improved Horse Hoe,
HICKOK'S
CIDER MILL AND PRESS,**

FOR SALE BY A. LONGETT,
34 Cliff-st., (corner of Fulton,) New-York.
May 27—w4tm2t

THE SECRET DISCLOSED!!

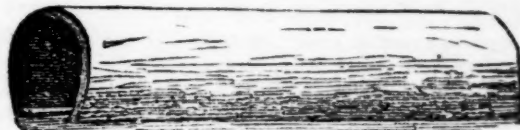


THE FARMER'S PRACTICAL HORSE FARRIER, containing ample directions for Doctoring; a large collection of valuable recipes, and the GREAT SECRET of Taming Horses. Sent free on the receipt of 50 cents.

AGENTS WANTED.

E. NASH, Publisher,
Auburn, N. Y.

May 13—w3tm1t



New-York State Tile Works,

On the Western Plank Road near the Orphan Asylum.

THE subscribers still continue the manufacture and sale of Draining Tile for land draining, in large or small quantities, warranted hard-burnt and perfectly sound, and altogether superior to any made in America; if not, the purchaser need not pay for them. On orders for 5,000 or more a discount will be made.

N. B. These Tile are made of pure clay, and very strong.

| HORSE-SHOE TILE—PIECES. | | SOLE TILE—PIECES. | |
|-------------------------|-----------------|-------------------|----------------|
| 2 1/2 in. calibre,-- | \$12 per 1,000. | 2 in. calibre,-- | \$12 per 1,000 |
| 3 " " " " " " | 15 " " | 3 " " " " " " | 18 " " |
| 4 " " " " " " | 18 " " | 4 " " " " " " | 40 " " |
| 5 " " " " " " | 40 " " | 5 " " " " " " | 60 " " |
| 6 " " " " " " | 60 " " | 6 " " " " " " | 80 " " |
| 7 " " " " " " | 75 " " | 7 " " " " " " | 125 " " |

Orders thankfully received and promptly attended to. Cartage free.

ALDERSON & JACKSON,
Albany, N. Y.

EMERY BROS. Agents, Proprietors Albany Agricultural Warehouse, 52 State street, cor. Green.
April 8—w2m—cow2m—w2m—m6t.

GOOD MEDICINES.

IT IS estimated the AYER'S CHERRY PECTORAL and CATHARTIC PILLS have done more to promote the public health than any other one cause. There can be no question that the Cherry Pectoral has by its thousands on thousands cures of Colds, Coughs, Asthma, Croup, Influenza, Bronchitis, &c., very much reduced the proportion of deaths from consumptive diseases in this country. The Pills are as good as the Pectoral and will cure more complaints.

Everybody needs more or less purging. Purge the blood from its impurities. Purge the bowels, liver and the whole visceral system from obstructions. Purge out the diseases which fasten on the body, to work its decay. But for disease we should die only of old age. Take antidotes early and thrust it from the system, before it is yet too strong to yield.

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March 11—w1am—mtf.

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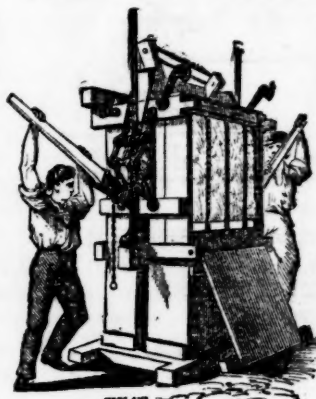
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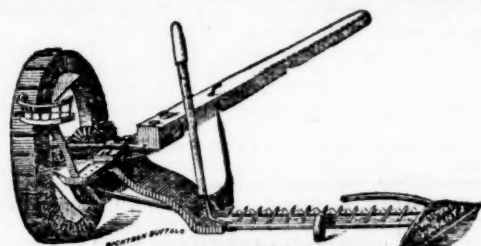
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